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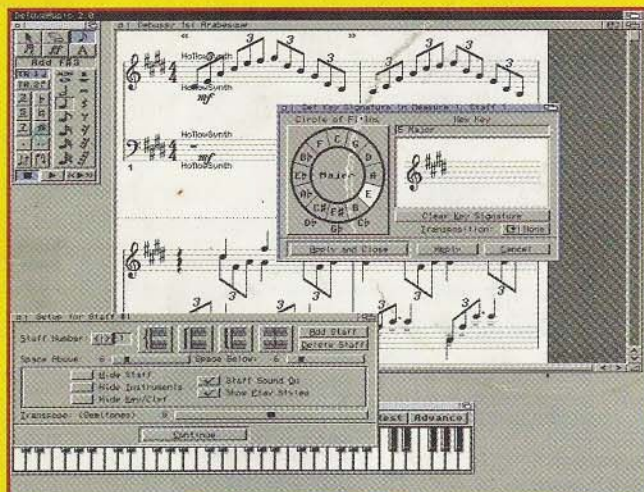
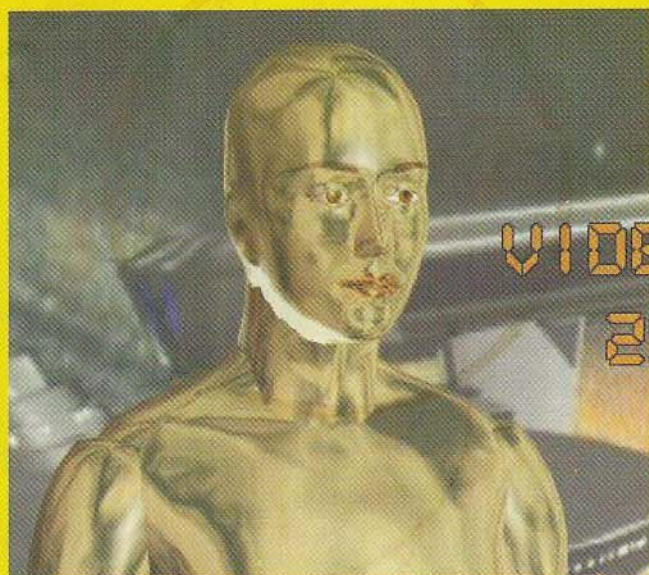
Review

NEW:
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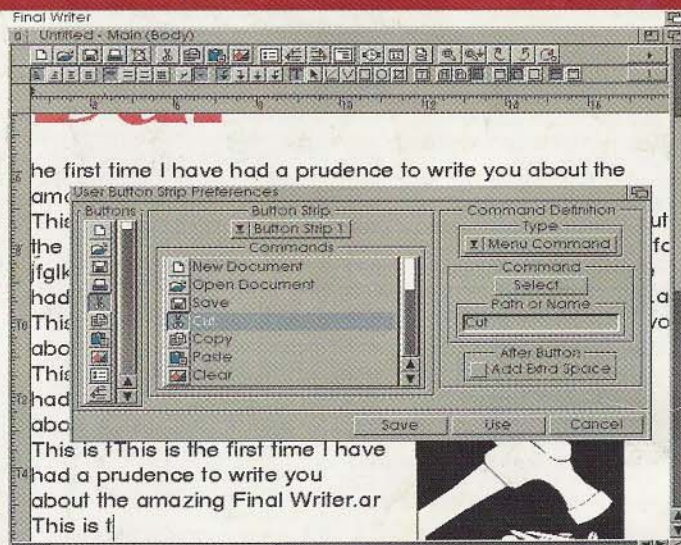
Review: New Network
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PREVIEW: Final Writer
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Review: Version 2.0
Deluxe Music



Latest CD32 Games



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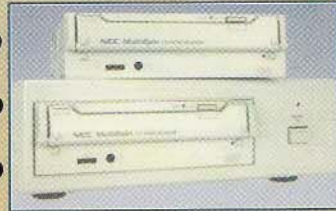
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Commodore A2620 Accel 2Mb	\$399
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Bernoulli 150Mb Insider w/cart	\$1350
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GVP Impact 500 No Drive	\$475
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Commodore A2091 HD Card Ex-Demo

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NEC CDR-55 with s/w	\$799

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1084S Stereo Monitor Ex-Demo	\$249
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Sony 14" Trinitron	\$899
NEC 3D Multisync Monitor Ex-Demo	\$699
NEC 5D 20" Multisync Monitor Demo	\$1999
Commodore 1940 Bsync Monitor	\$499

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MBX1200 RAM Card 68881 4Mb	\$599
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Aladdin 4D	\$529
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Art Expressions	\$275
Bars & Pipes Pro V2	\$449
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Broadcast Titrer Hi-Res	\$399
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CD32



In Stock Now

January AGA Trade-up Deals

Each month Sigmacom is offering Fixed Price upgrades to the New AGA machines - for example

Package 1. 1084S* → 1940 Bi-Sync

*Working 1084S monitor trade up to a 1940 Bi Sync monitor only

Package 2. A3000 → A4000 030

Amiga 3000 with 52Meg HD 6MbRAM trade up to an A4000 with an 030 processor 120Mb Hard Drive 4Mb RAM

Package 3. A3000 → A4000 040

Amiga 3000 with 52Meg HD 6MbRAM trade up to an A4000 with an 040 processor 120Mb Hard Drive 6Mb RAM



The fastest most reliable SCSI-II card for the A3000/A4000 with space for up to an incredible 256Mb of 60ns RAM - \$995
Features • Full 32 bit Zorro 3 inc auto config & DMA • up to 20mb/sec transfer • SCSI, SCSI-II & Fast SCSI-II • Mount R&W MSDOS formatted volumes • Speed increase • CD Rom stds. • new caching software.

V-LAB Framegrabber - V-LAB Y/C and Ext V-LAB for A1200

These boards can now grab at an effective rate of 30 frames/sec. VLab is a 24-bit framegrabber designed to compliment the Retina or Harlequin boards. Both cards have full AdPro and Imagemaster drivers, extensive developer libraries and docs. Phone or call in for a Demonstration.

Hints & Tips

Enhance or replace?

This is the question posed by many of our customers over the past month. The question of whether to upgrade your existing Amiga or trade it in on a new AGA machine is a difficult one, and the solution really depends on what you intend using the machine for most.

The AGA machines (the Amiga 1200 and 4000 series) offer previously unmatched graphics for a base machine. A wide variety of existing and new software is being released which makes use of the extended colour palletes. Up to 256,000 colours, from a palette of 16.8 million, can be displayed simultaneously. For many images, this HAM8 mode is indistinguishable from full 24bit (16.8 million colours simultaneously).

Meanwhile, the last month has seen a previously unmatched number of 24bit display cards released or advertised for release. Clearly adding one of these boards to say and A2000 or A3000 provides more colours to work with than a standard A4000, and in many cases, a faster display than AGA. Some of these cards offer a form of AGA emulation, which 'fools' AGA software into running in AGA modes. However, in our experience, this emulation is suspect at best, at least at the current releases of driver software.

Despite this, more and more serious graphical software applications are including drivers specifically written to support these cards, thus offering full 24bit graphics! Clearly the decision of whether to add a 24bit card or upgrade to AGA depends on the software you intend using, the cards it supports directly, and of course your budget!

In general it's cheaper to add a 24bit card to your old machine.

MH

Morphus for Imagine	\$169
Newtek Media Station	\$299
NASA CD Software	\$59
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Vista Pro V3	\$99
Winimages	\$249
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2.04/2.05 Kickstart ROM	\$69
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3-way Internal SCSI Cable	\$29
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A1200 clock

Mice and Accessories

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Axelen Optical Mouse	\$89
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GVP GLock VGA	\$2149
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GVP EGS Spectrum 1Mb	\$999
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Modems

Interlink VOIDAX II Data/Fax/Voice	\$649
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Maestro 14,400 Data Fax Modem	\$599

Miscellaneous

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Keyboard Skin (suit all Amigas)	\$39
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Kickboard Plus	\$59
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Monitor Switch Box	\$99
Kickstart 2.04 ROM	\$69

Ex-Demo

Amiga 500 512K Ex-Demo	\$299
Amiga 2000 base machine Ex-Demo	\$499
External Floppy Drives Ex-Demo	\$99
XT Bridgeboard Ex-Demo	\$100
AT Bridgeboard Ex-Demo	\$399
AT-Once 286/16 Ex-Demo	\$199
GVP Impact 500 No Drive Ex-Demo	\$300
GVP Impact 500 HD 52Q Ex-Demo	\$599
A590 20 Mb HD O RAM X-Demo	\$349

A590 20Mb HD 1Mb RAM X-Demo	\$399
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1084S Stereo Monitor Ex-Demo	\$249
NEC 3D Multisync Monitor Ex-Demo	\$699
68030 Accelerators call for details	

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EGS 28/24 SPECTRUM

The EGS SPECTRUM from GVP fully supports the Display Database starting with Kickstart 2.04. Any programs that open screens from this list will run on the EGS-28/24 SPECTRUM, including Workbench!

Even programs that do not support the Display Database, but do use standard workbench-type screens will also run on the EGS-28/24 SPECTRUM in high-resolution colour.

The high-performance Paint package has abilities and features not found in other paint software, including Pantograph painting, turbo airbrush, and Real-Time 16-million colour painting tools.

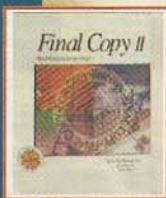
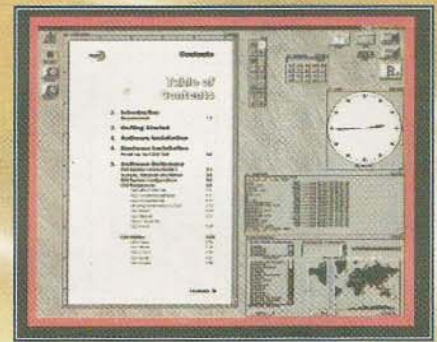
The window-based architecture allows **multiple images** to be opened at once on high-resolution screens (up to 1600x1280) for editing, compositing, and manipulating. This makes life easier than ever before, and is unavailable on competitive products.



The EGS libraries make it easy to develop professional-looking, high resolution, true colour applications that are portable, reliable, and productive.

Years of R&D have gone into these libraries and they offer a very real and very flexible **Retargetable Graphics Operating System** for the Amiga platform.

PLUS the EGS Amiga Pass-Through allows native displays to reach the monitor under software control. This feature eliminates the need for two monitors without sacrificing features.



Final Copy II

Word Processing from beyond. • Scalable Fonts • Multiple Columns • Text Flow round graphics • On-screen Drawing • Boxes Borders Lines Arrows • Import Graphics in AGA. This Month **\$139**



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ProPage 4.1

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Deluxe Paint AGA

Deluxe Paint comes of age with the AGA version offering full 24bit painting at the standard we expect from the World's No.1 Paint Software. **A Steal at \$150**



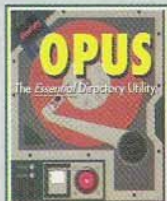
ProCalc

For business, for Home, for School, for everyone - a spreadsheet that takes the work out. True power and function + 123 Wk file compatible. This Month **\$229**



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A new column - latest info on hardware & software

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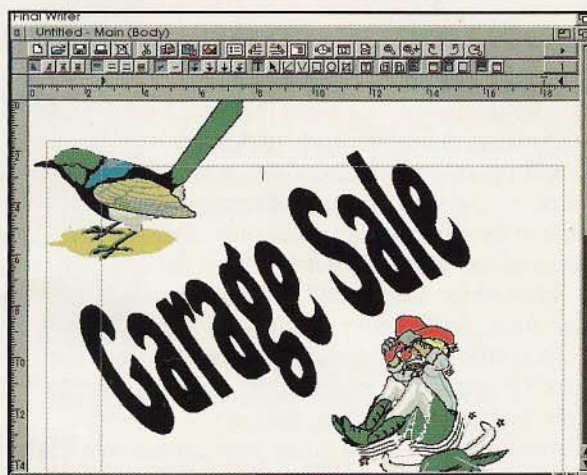
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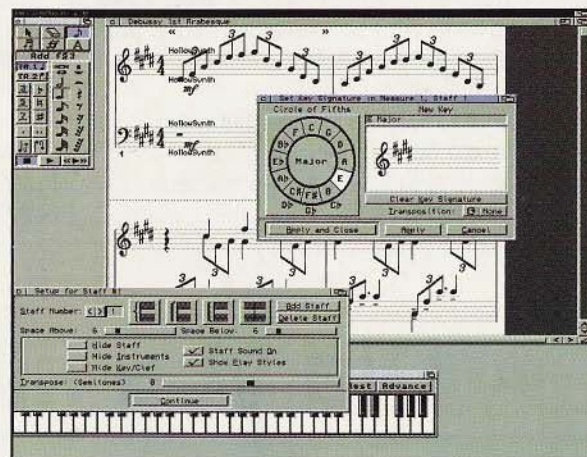
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Yo Joe!

The Future of Amiga

At the start of each year, it is traditional to step back from the day to day grind and take a few moments to ponder the future, or indeed the past. I speak purely of the microcosm that is the world of Amiga. It has always been a world of uncertainty from the very day the Amiga Lorraine corporation ran out of money and were later purchased by Commodore - but only after bids by Atari fell short of the amount needed to keep the company afloat.

Ever since that fateful day, Commodore International has come under heavy scrutiny by the millions of Amiga owners who wished more shared their passion. They blamed lack of marketing, poor advertising and late delivery of new technology for the Amiga's low profile. And yet, Commodore have had some very memorable campaigns. In the US, "Try that on your Mac, Jack!", was one of the ads which extolled the Amiga's brilliant multitasking capabilities. Lucas Productions spent millions on another series of ads which looked like a scene out of the movie *Close Encounters* - but the encounter was with the amazing Amiga. In Australia we saw John Laws do his usual droll delivery, with all the authoritative punch that a man who found something better and switched to it could possibly have.

When the Amiga 1000 was launched in Australia at the Abbey restaurant in Sydney back in 1985 Ross Bloore, Commodore Australia's Amiga marketing guru of the time, impressed the audience by running multiple clocks. The media gasped in appreciation and yet few seemed to really

grasp what the machine was all about. Multitasking was clearly an impressive feature - one which *Chicago*, the next version of *Windows*, may finally offer some nine years since the Amiga's launch.

So, what of the future? Ignore any doomsayers. Whatever happens, Amiga technology will survive. It's too good not to.

Although stiff competition in the future is likely, right now CD32 is leading the CD based games console market - it's the only available console with CD as standard and software support is growing.

AAA development continues, and Commodore do have plans for future Amigas. Third party product development is racing ahead in the video area. Programs like *Final Writer* and *Pagestream 3.0* will also see to it that the Amiga continues to grow as a design tool for print media.

On the emulation front, a new version of AMAX - with complete colour and System 7.0 support - is expected any day now, and the amazing Emplant card promises new capabilities every month (3D0 and 486). It won't be long before we can run DOS and *Windows* software without a hitch.

At *Amiga Review*, we're very confident the Amiga is set for another good year. Sure, there will still be some who disregard it as a serious machine, but then few of these people have actually ever used one.

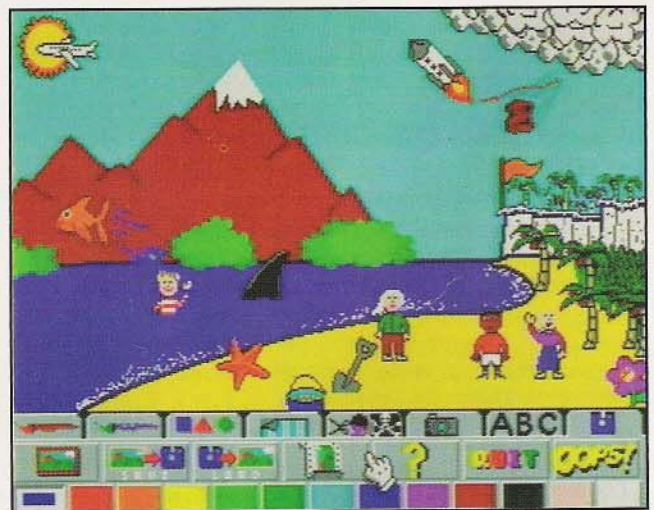
ANDREW FARRELL



Did you fill in the reader survey last month?

Every reader survey returned is in the running to win an Amiga CD32 player or one of three **Hoopy Paint** programs or two Amiga 1200 training videos.

Now, **Hoopy Paint** is a seriously groovy paint program. In fact, we reckon it's the most fun you'll have this summer - especially if you've got some kids around the house who need to be entertained. **Hoopy Paint** makes painting easy and fun for all ages. So be sure to return the survey from last month's *Amiga Review* so that you're in the running!



SCALA

The Multimedia Revolution



The file Requester Shuffler provides a fast visual overview of a directory.



The Edit Menu now includes tools for structured drawing.



The new Absolute Timing is extremely useful when working with video and music.



Many exciting new wipes are included in MM300 and can be applied to pages, text and brushes.

EX Scala EX

A revolutionary new plug and play system for the integration of LaserDisc, Still Video, MIDI, or CDTV sound in your Scala presentation.

NEW: IV-24, G-Lock, Link, Canon ION Still Video, MIDI 2.0, CDTV 2.0, and other EX's included.

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NEW: Play sound samples direct from hard disk.

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NEW: File Requester Shuffler for easy preview of pictures, animations and brush files.

Scala Buttons

Creating interactive hotspots has never been so easy! Scala MM300 even includes full support of variables.

NEW: Add sounds to buttons and automagic button creation for screen objects.

Scala LINGUA

The multimedia language Lingua with its close link to ARexx puts the advanced user in total control!

And much much more. Upgrades from MM200 available NOW! Please Call!

Scala Echo

With the optional Scala Echo your Scala MM300 system becomes a powerful DTV solution. Scala Echo enables you to easily edit your videos with your personal computer. Add high quality titles, graphics and sound to your videos. Scala Echo consists of a sophisticated cable unit which connects to the computer's serial port. One cable has a LANC/Control-L minijack which connects to the source deck, and the other has an infrared sensor which exchanges signals with the VCR. The recording is done in OnePass, retaining quality and saving time. Includes over 150 symbols to personalise your videos.



Brushes can be cropped and resized freely.



With the optional Echo EE100 IR/LANC interface you have freedom to add titles and captions to your video creations.



Use the Echo EE100 IR trainer to teach the software how to control your VCR and other IR controlled devices (i.e. CD Players, LaserDiscs, Amplifiers etc.)



Echo EE100's LANC controller gives you complete control of a source video from within MM300.

Distributed in Australia by:

Peripheral World



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Notepad

Pixel 3D 2

Axiom software is shipping version 2.0 of *Pixel 3D Professional*, the popular 3D utility for conversion of bitmap fonts and images to 3D. *PixPro 2.0* also features full support of Postscript fonts and files. Convert Postscript type 1 fonts to 3D images, and convert Postscript drawings to 3D with high resolution for perfect 3D logos.

There's now full support for AGA modes, a new z-buffer for viewing objects, point editing, smoothing beveling, and data reduction functions. You can convert 3D objects from one format to another with support for object heirarchies and surface attributes. Upgrade from previous versions available from Axiom software.

Pixel 3D Professional requires 2 Megabytes Fast RAM, 1 Megabyte Chip RAM and Workbench v2.0 or higher. Suggested list price is US \$399.95. Upgrades from *Pixel 3D 1.1* or 2.0 are available for US\$125.00. Upgrade from *Pixel 3D Pro v1.0* will be US\$40.00 from Axiom Software, 1668 East Cliff Road, Burnsville MN, 55337, (phone) 612 894-0596.

Commodore stock jump

Interest in Commodore stock at the New York Stock Exchange jumped recently with a \$1.50 rise in the share price in one day as some 57 million shares were traded between unknown parties. Most observers were very surprised, although some Amiga commentators in the US remain sceptical.

Talk of possible takeovers has once again surfaced, although there's nothing official to indicate something is afoot.

Imagine 3.0 ships

In fact, because the manual wasn't quite done yet, it looks like version 2.999999..... is shipping now and version 3.0 will be in your mailbox at the end of the month with the complete manual!

Videostage Pro unveiled

According to Oxxi, spectacular video and on screen interactive productions are easily created with *Videostage Pro*. Shows can incorporate text, graphic objects, video clips and sound. Remote control via modem or network and built in ARexx interface enable *Videostage Pro* to develop applications in training, kiosk style information centers, and video catalogs. *Videostage Pro* is compatible with AmigaDOS 3.0 and AGA chip set.

On the Storyboard you can insert Icons of "show events" - graphic images, title screens, sound events, ARexx calls, genlock events, and play loop events. Scroll bars allow you to quickly move about the show.

The Time Line displays different tracks for Graphics, Titles, Sound, ARexx, Genlock and Control Events. You can zoom in for precise align-

ment and preview any segment of the show.

Individual characters, lines of text or blocks of text can be animated. There's the option of Normal, Piecewise, and Gridwise movements. Fonts supported include Amiga colour and rescalable compugraphic.

Characters can "grow" from small to large. Any IFF image can be used as a backdrop or you can generate gradient backdrops, or gradient fills of text or objects.

All Amiga resolutions and overscan levels are supported. With certain Genlocks it is possible to switch between A and B video sources with the click of the mouse. Interactive Hot Spots can be set up. Pre-defined play loops can be utilized for user directed interactive on screen presentations.

Hot Spots can be areas of the screen or graphic buttons. A Button can be outlined or given an embossed appearance plus you can incorporate identifying text.

Button text can incorporate any Amiga font including colour and compugraphic fonts. Dazzling Special Effects include over 60 built in transitions. Transition style effects include wipes, fades, scrolls, smooth scrolls, and blocks. There's complete control of individual transition effects.

Automatic detection of colours that can cause a bleed effect for NTSC or PAL Composit Video is provided. The On-line Color Palette allows user to adjust colors to tolerable levels.

Hot Color Test works in all resolutions including NTSC and PAL.

Remote Control of *VideoStage Pro* is possible through modems, networks and ARexx scripts. It automatically checks for time and data changes and can load new version of file automatically.

Videostage Pro requires an Amiga with one disk drive and 3 Meg of memory. Optional additional RAM, additional floppy disk drives, or a hard drive can't hurt.

For more information contact Oxxi Inc., at PO Box 90309, Long Beach, CA, 90809, (phone) 310-427-1227, (fax) 310-427-0971.

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We stock the full range of Blue Ribbon Soundworks products including SuperJam, Patchmeister, Bars and Pipes Pro 2 etc.

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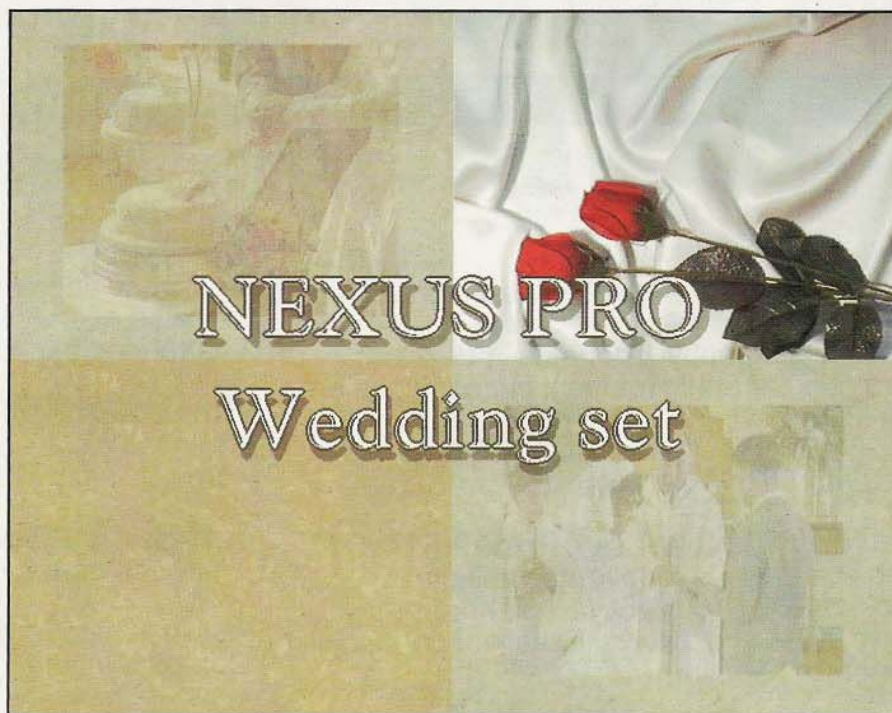
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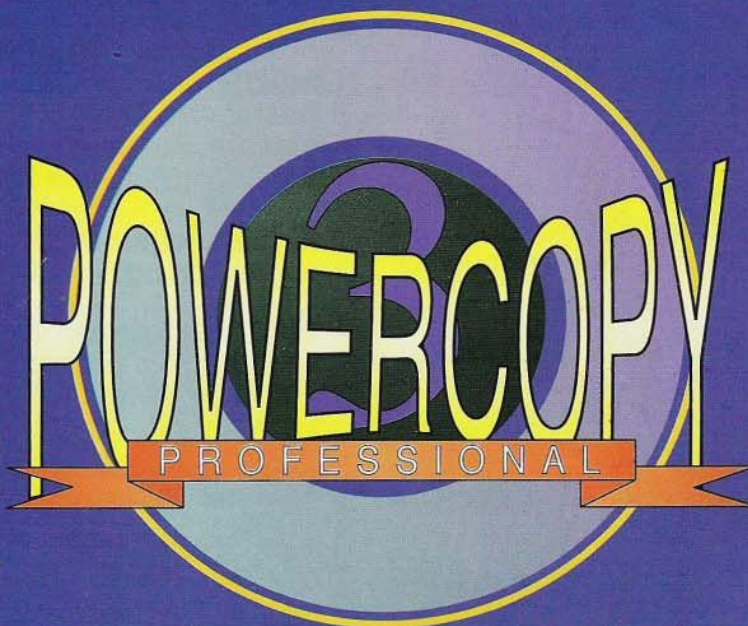
If you're looking for slick 24-bit backdrops for your own video work, animation or presentation, Videoworld Multimedia have released just the thing. The *Nexus Pro* range of images were captured on an A4000 using a 24-bit frame grabber. The disks come as AGA images, although they're also available in other formats on request. Subjects include Papers, Fabrics, Textures, Travel, Weddings and a general Introduction pack. The disks are only available direct from the UK by contacting Videoworld on 041-641 1142. The whole set should come in at around \$200.



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PageStream 3.0!

Although the arrival date for the most major upgrade in the history of Amiga desktop publishing seems to have slipped since our last issue, the feature list is looking no less spectacular.

According to Softlogic, *PageStream 3* is the ideal program for any desktop publishing project. It can be used to write letters, produce high-end colour separations and publish complex books with multiple sections and chapters. The new trapping and plate control features makes *PageStream 3.0* a leader in the emerging pre-press field.

PageStream 3 breaks new ground with a dual paragraph and character style system that allows style override, style ripple and object styles. The new style system makes applying attributes to text and objects easier than ever before. The flexible toolbox allows users to choose between small, large, vertical and horizontal toolbox layouts. There are floating panels for fonts, colours, styles, macros and pages to make editing easier.

PageStream 3 offers an incredible array of document formatting features. Auto-kerning and auto-hyphenation have been added, and text styles are configurable, including changing the shadow type and offset, and the underline method. The tab feature allows left/centre/right alignment on any character, and dot leaders (filled tabs) can be made with any character.

UMAX Scanners

Selected by *Mac User* magazine as the best quality flat bed scanners, the Umax range is now available for the Amiga. Startek have been appointed as Australian distributor and sell the units complete with an AdPro loader and SCSI cable. Model include a 600DPI, 8bit model for \$1745, up to the 800DPI, 24bit version at \$2499. The UMAX are certainly excellent value for money.

For more information call (03) 752 3905.

Easy Ledgers II

The Australian Amiga Professional Software Company is a new consortium of two companies - AeroStar Industries and the world famous Dr Greg Perry - the man mostly responsible for the Amiga fax revolution. TAAPS now hold the rights to *Easy Ledgers* and *Service Industry Accounting*. Upgrading these two programs to the AGA environment is complete along with numerous bug fixes. Both programs are being further enhanced to make them easier to use. The updated program will have a single complete manual for any system - for home and small office including pur-

chases, sales and a ledger. Modules of inventory and job cards will cater for larger business.

Accessing the extra modules will be possible simply by making a phone call to get the necessary unlock code and pay the extra cost - the entire package will ship with the original purchase.

A video called *How to use Easy Ledgers* is being produced to encourage everyone with an Amiga to look at the program as a solution to their accounting needs. You'll need a machine with 1Mb of RAM and at least Workbench 1.3 - for more information call (074) 91 9190.

PageStream 3.0 now supports the Pantone Color System, using this industry standard to provide printed colour accuracy with guaranteed results. It also offers support for spot and process colour, and CMYK, HSV, and RGB colour models.

PageStream has always supported numerous formats. Import a *Word Perfect* file and export a *Final Copy* document. Or import an IFF ILBM and export it as TIFF. Import an *Adobe Illustrator 3.0* EPS file, interpret it into a structured drawing, and dissolve it into component shapes and paths.

And the newly added format of translating *Professional Page* documents. Users of Gold Disk's *Professional Page* DTP can now make the transition to *PageStream* painlessly. Converting a *Professional Page* document for use in *PageStream* is simple.

PageStream 3 adds the power of ARexx without adding the complexity. *PageStream 3* features are an extensive ARexx command set that will satisfy any power-user.

PageStream 3.0 comes with the *PageLiner 2.0* text editor and the *BME 2.0* bitmap editor. These programs are linked to *PageStream* with the included *HotLinks 2.0*, the Amiga data exchange standard.

PageStream 3.0 will be available in early autumn for \$395. Customers who purchase a full copy of *PageStream 2.2* after March 15, 1993, are eligible for a free upgrade to version 3.0 by mailing their registration card, proof of purchase and \$5 for shipping and handling, to Soft-Logik. Previous purchasers can upgrade for \$125 if they own *PageStream 2.0* or higher, or for only \$95 if they also own *HotLinks Editions*. *Professional Page* owners can upgrade to *PageStream* for \$175 (limited time).

Deluxe Paint tutorial

Taking full advantage of Amiga's multitasking environment, *DPTute* can run on your Amiga as well as *Deluxe Paint*. The program simulates the *Dpaint* screen - selecting a tool generates information and graphic examples about the selected item. It is ideal for schools, as it relieves teachers of the constant hand holding normally required with paint software. *DPTute* is not copy protected, may be installed on your hard drive and will be followed up by tutorials covering additional areas of *Deluxe Paint*. RRP is \$45. For more info (008) 251 3655.

PC Sound and Video

Add a bridgeboard to your Amiga 3000, and only one PC slot remains. Fonhof Computer Supplies have solved this dilemma by sourcing the 1Mb ATI VMASTER-F/X card - priced at \$449. The card combines SVGA graphics and sound/midi on a single board and supports up to 1024 x 768 in 32,768 colours with a 72Hz noninterlace refresh rate. It also comes with an 8W sound amplifier and MIDI breakout box.

This slot saving add on for your bridgeboard or Golden Gate card works on an A4000, 3000 or 2000. For information call (02) 639 7718.

Scala offer new range

As competition in the multimedia stakes starts to hot up, Scala have announced the launch of a range of new products including a new version of the popular Scala MultiMedia. A natural progression across to Desktop Video software has also happened, with the launch of Scala Echo EE100 for entry level users, and the professional VE500. Both products make it easier to combine titles, animation and Amiga sound with video footage by combining the video assemble and presentation elements into one step.

Volumes 2 and 3 of the Scala Art Library were also announced, each with a selection of over 50 backgrounds. ScalaType 2 gives you 15 new fonts to play with - two are designed specifically for subtitling, the others are all for decorative purposes.

Scala MM300

Owners of Scala MM200 will be pleased to know the next version is now shipping - however upgrades require trading up your old dongle! What Scala think we'll all be doing without our dongles while they are shunted around the country and sea by snail mail has us here at *Amiga Review* somewhat dumbfounded.

Anyhow, there's some neat new features which do make it a worthwhile upgrade. The File Requester now opens as a Shuffler - so pictures show up as thumbnails (using icon embedded pictures). Drawing tools let you create lines, rectangles and circles which can be resized and moved - plus the usual transitions and styles.

According to Scala the new Floyd-Steinberg dithering of images and brushes is so fast it leaves other packages miles behind. In the timing area, there is now the option to set absolute time points so you can easily sync up a presentation with a prerecorded

video segment or other absolute events. You can set an event to happen at a particular time code - all a part of the product's continuing evolution into desktop video.

Optimize palette will calculate the best colour palette for a page when several pictures, brushes and text colours are used on the same page.

Brushes and pictures can be resized on the page or when you import them. They may also be cropped and moved as often as you like, or converted to different sizes, resolutions, numbers of colours and so on.

At long last the sound on button option has been restored. Antialiasing functions better to help create smooth flicker free text.

Other new features include Automagic button creation, new wipes (FadeToWhite, Nuclear, Random, Dissolve, Ants, Rollodex, Flipover, and Cccut), better horizontal scrolling, separate underline colour, new backgrounds, transparent boxes, hard disk sound playback and 24-bit picture preview.

New EX modules included are MIDI 2.0, CDTV 2.0 and various genlock and 24-bit EXes. Overall, a very impressive number of improvements. It will be interesting to see how new competition such as MediaPoint stacks up. □

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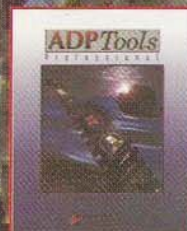
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There's a lot new on the Amiga this month and especially for A1200 owners:

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- **MASTERING AMIGA AMOS Revised Edition (BOOK).** Updated version of this very popular book. Covers everything from Easy AMOS to AMOS Pro, 3D and the Compiler. It will also teach you game concepts and ideas.

- **ASSEMBLER INSIDER GUIDE.** Written by Paul Overaa, the author of MASTERING AMIGA ASSEMBLER. This is designed for the newcomer to get a grip on Assembly concepts and programming.

- **MINI OFFICE** is now compatible with the A1200.

HOT HOT HOT HOT

Alfadata 2.5" to 3.5" IDE Cable adaptor - This amazing cable will allow you to connect a cheaper 3.5" IDE drive to your A1200 instead of your 2.5" 40MB IDE Drive. 3.5" Drives are around \$200 - \$300 cheaper than their 2.5" cousins. This is simply the cheapest way to add large storage media to the Amiga 1200.

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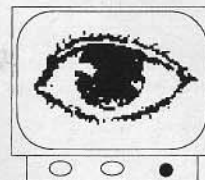
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Media Watch



Spottings

Phillip Rankin of Sysart, Qld spotted an A500 and 1084 monitor in the movie *Alien Factor*; and a CD32 as a prize on *Wheel of Fortune*.

John Hill of Green Point, NSW saw none other than Mike Carlton and his son playing a soccer game on a 1084-equipped A500 in the November 27 issue of *New Idea* (and he doesn't want a free subscription - he's already got one that he paid for!).

The same can't be said for Daniel Szmandiuk, who'd like his subscription extended for spotting an A2000 keyboard in the Arnott's Shapes ad featuring the young man ransacking his room. The clincher was the standard Commodore mouse sitting by the keyboard. *** *Does he get a freebie, Andrew?* ***

Likewise hunting a sub extension is Nic Beavis of Tamarama, NSW, who was among the many fans who spotted Amiga graphics on the video wall at the Sydney Entertainment Centre for the Sydney Kings' last game of the season. Nic went to the trouble of tracking down the source - an A3000 running *Scala* and switching in and out of live video. *** *Don't think he gets a sub, though ...* ***

The most impressive sighting this month comes from Douglas De Vine, who spotted an article all about Amigas in September's edition of *Arts & Education*. The article talks about De La Salle College, a high school in Cronulla NSW, where students are using Amiga systems to present their history assignments. With *Digi-view*, *Deluxe Paint* and *Scala*, students are putting together video presentations via a genlock. They gain skills in information technology, management, communications, simple electronics and visual media as well as history.

Many people have now spotted Andrew Farrell's regular articles in the *Sydney Morning Herald* and *Melbourne Age* computer sections. In the words of Michael Granat of the Victorian Amiga User Group, the column provides "a high profile voice for the Amiga" in both cities, waking up the hordes of IBM users out there to the capabilities of the machine.

Country Amiga Users Association

The CAUA is a user group currently forming to cater for Amiga users all over Australia but based in Young, NSW. They aim to produce a quarterly disk magazine, called *The Amiga Generation*, and are currently trolling for sponsors and advertisers. If you're interested in this or in just becoming a member, contact Michael on (063) 82 3292 or Joel on (063) 82 3097.

Commodore Hornsby User Group

CHUG is a well-established Commodore and Amiga users' group with about 100 members that has undergone some changes recently. They still meet on the second and fourth Wednesday of the month, the second for workshops and the fourth for the main meeting, at St Leo's College, Woolcott Ave, Wahroonga at 7:30pm, but the Secretary can now be contacted on (02) 487 1062, and the bulletin board number (Three Amigas) is (02) 609 4458.

The group features a PD and magazine library, a bi-monthly magazine (Peripheral), beginners' classes, phone help and a club shop.

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* Available January 1994.

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Letters TO THE EDITOR

1960 monitor support

My 1960 multisync monitor is capable of supporting 800 x 600 (noninterlaced) and 1024 x 768 (interlaced) displays. Yet I can't take advantage of these displays because my Amiga 1200 doesn't offer the corresponding display modes.

Now I know the Amiga 1200 is capable of a 1024x1024 (non-interlaced) display albeit only in four colours (A2024 display mode). This makes me think that the AGA hardware should be capable of supporting the display capabilities of my 1960 monitor.

I have read that the AGA display modes are totally configurable through software drivers, and so I was wondering if there were any alternate display drivers out there that would be of more practical use to me.

The set of display drivers supplied with the Amiga 1200 seem to have put 256 colour capability above all else - for productivity I would prefer to sacrifice colours in order to attain the higher resolution displays that my monitor is capable of.

For example, I would find a 16-colour 800 x 600 non-interlaced display far more useful than the annoying flickery 256 colour Super72 Super-High Res display I currently have to put up with. Are any such drivers available or even better, any utilities that allow you to design your own display drivers and choose your own trade-offs?

Michael Flanagan
ACT

Ed: The display enhancer for the Amiga 4000 does what you want. At the moment, AGA technology offers a somewhat cludgy method of fixing flicker which tends to slow down things - and it only works in hires - not above. The original display enhancers available as an option in the Amiga 2000, and built into the A3000, were better - but lacked the colour bandwidth of AGA - and of course the graphics chips on the earlier machines didn't offer the higher resolutions. Life's one big compromise sometimes. Hopefully third party companies will solve this shortcoming soon. No alternative drivers are currently available.

Which sampler?

I have owned an Amiga 500 for about three years now (after upgrading from a C64), and I have been using it in the areas that the machine excels at - graphics, games and especially music. I regularly use *OctaMED Pro V3*, *Protracker 3.10B* and sometimes even the ancient *DMCS* for creating both originals and enhanced versions of songs, but the thing is that I need many samples, which I have on my keyboard, but not on my computer, so I have decided to get a sampler, I've narrowed it down to two: *Stereo Master* (which has been recommended by a good friend and computer wizz and also which I can get through the British magazine *Amiga Format* for about \$90ish) or a package which I have seen advertised in this magazine; *Digital Sound Stu-*

dios (DSS) by GVP (The ad made it sound really good, but I don't know the price, sorry). Another problem is that I'm a student in year 10 on a very limited budget and I really can't afford to spend too much over the \$100 limit.

Could you please tell me the pro's and con's of each package, so that I can continue creating - but please note that I need compatibility with an: A500 with a 1meg agnus, 512K chip RAM, 512K fast RAM and a 9 pin printer in the parallel port (my keyboard isn't midi compatible, but I may sell it and buy one in the future). Thanks a lot!

Ian McElwaine
NSW

Ed: Well Ian, in your case the decision is made simple by your price constraints. The DSS PLUS is \$199 - although I'm assured it's a way cool sampler.

Paranoia or valid concern?

I always enjoy reading both the magazine and your column in the *Computer Age* on Tuesday. So, I was hoping you could relieve my mind of a nagging concern. I don't think I am an unduly paranoid person, but I am developing an increasingly bad feeling about the future of this fantastic computer.

Has anyone but me noticed how hard it is to find software now? The department stores that once were good places to browse now have one or two Amigas on display but virtually no software, and what there is, is very old.

The reasons? - I always make a point of asking: "There's no demand for it". "Shelf space costs money". Or worse, "Amiga? What's that? Some sort of game?" Even those stores that have begun to stock Amiga hardware, like Brash's or Dick Smith, have minimal software. Similar reasons are given: "There's not much around", or "It's not worth our while".

Worse things too. In my spare time I am addicted to big strategy games, like *Civilization* and *Warlords*. I had an account with Computer Source Direct in the ACT, a wonderful firm to buy from.

They apparently disappeared some months ago, taking a paid for program of mine with them!

And in last month's *Amiga Review* an inquiry was made about *Warlords II*. So I rang DirectSoft to find out when I could buy an Amiga version of this excellent game. I was told very definitely that there will not ever be such a game.

When I asked why this was so I was told: "There's not enough demand for Amiga products now", and worse, "The Amiga is a dead computer. No-one is producing anything for it now".

What is going on? Although wonderful new hardware is being developed, where is the range of software? Do we wait and hope, or must we look at cashing in our beloved Amigas and joining the crowd of PC and Mac users? Is this just an Australian phenomenon, which will mean that software will have to be purchased from Britain or the USA, or is the Amiga really heading for extinction? I hope not!

Lynden Fall
Vic

Ed: Since your observations were made, I believe things have improved slightly - thanks to valiant efforts by Commodore Australia to encourage the larger resellers to carry software. According to official sources, titles such as *Wordworth* have moved in considerable numbers through these channels.

Smaller resellers continue to report strong trading and by no means do they feel the Amiga market is shrinking. *Amiga Review's* advertising support is proof that the market is alive and well.

Of course, you've raised some valid points. However, if seeing PC titles was any way to score the future viability of the Amiga, it would seem all was lost long ago. Not one main stream MS-DOS product in the wordprocessing, spreadsheet or database area has made its way across to the Amiga. No, not one desktop publishing or paint program either.

And yet, today we happily desktop publish, paint, wordprocess, and spreadsheet using products which are Amiga through and through. Although it's a shame we don't have *Lotus 1-2-3*

or *Word for Workbench*, we've got some mighty fine alternatives.

No, the Amiga is not dead. There has been a pause as software publishers move across to AGA. And now that CD32 is out, I'm sure we'll see plenty of new entertainment titles across the board - especially on the AGA machine.

It is true that in America, and Australia to some extent, the Amiga's strengths continue to grow in niche areas. However in Europe and Germany the machine continues to enjoy immense popularity as a main stream choice for home computing. That is not to say the Amiga has not been hurt by falling PC prices. It has, and will continue to be.

However, the Amiga operating system and architecture continues to compare well against the PC, especially once your average DOS box is souped up to match Amiga's sound, multitasking and overall speed. The fight is not over yet.

Should I wait for 3.1?

Firstly, I would like to compliment you on the continued excellence of the *ACAR* magazine.

I am an Australian living in Singapore, although I travel a lot from here. Support for the Amiga here is no good - hardware and software are both very expensive. I have an Amiga 500 with Workbench 1.3, an A590 and 127Mb Hard Drive.

I have a software version of Kickstart 2.04, and a copy of Workbench 2.05 to evaluate at the moment prior to upgrading my system to a 1Mb Agnus, Workbench 2.1 and Kickstart 2.04 or 2.05.

After reading the Notepad article on Workbench Updates in the September issue of *ACAR*, I was wondering whether to wait a little longer. In this article the writer mentions the imminent arrival of Workbench 3.1 - and goes on to say it works with any Amiga.

I realise there is probably no official information released on it yet, but can you tell me whether or not it will work on my Amiga 500. Is it worth waiting for? Should I settle for Workbench 2.1? Also which ROM is best suited to my

upgrade - 2.04 or 2.05 - or is there a new ROM to go with Workbench 3.1?

J. R. Whitehurst
Singapore

Ed: Details on Workbench 3.1 are still sketchy. It exists, and it's finished and it does work on all Amigas - yes, you will also need a new Kickstart ROM. The benefits of 3.1 to the average A500 user are minimal. However, since you're about to upgrade anyhow I would say hang on for another month or so and see what news surfaces.

As for the 2.04 or 2.05 issue - ROM versions normally reflect improvements, bug fixes and new features. So, grab the latest one compatible with your system - 2.05 if you can't wait for 3.1.

Amiga 4000 compatibility?

I am wondering if the Amiga 4000 is 100% compatible with the Amiga 1200? I have read in English magazines that some games that work on the A1200 don't work on the A4000. Both machines have the same chips and the same Workbench, so why aren't they fully compatible?

Also, will the AAA Amigas be compatible with the AGA Amigas? When will they be released on the market.

Keith J. Walker
NSW

Ed: Although the A1200 and A4000 share the same custom graphics chips, the processors are very different. The 68020 based CPU (the computer's brain if you like) in the A1200 is largely compatible with the earlier 68000 CPU used in the A500. The 68040 inside the A4000 is much more powerful, and a lot fussier about how programs are written.

Games tend to hit the hardware directly, and don't expect to run into too much out of the ordinary. On the A4000, the CPU is different enough to cause problems to many entertainment and even some productivity titles that don't do things the right way. Generally speaking, newer titles are more likely to work on all machines - programmers take more care these days.

Palmtop Computing

and your Amiga



While there may be no Amiga Laptops, there are low price alternatives for those whose creativity doesn't stop when they are on the move. Getting them to talk to the Amiga is possible too! By H. Wynen

The technology of the Amiga has improved considerably with the advent of the AGA machines, but there is still little hope of seeing a portable Laptop version in the near future. Despite the use of CMOS components in many areas, power consumption simply remains too high for acceptable running times away from the mains.

Serious Amiga users are consequently forced to look elsewhere if they really need portability. However, as today's Notebook computers are as powerful as their desktop cousins, apart from lacking some expandability,

they come at a price which puts them out of reach of the average, non-corporate Amiga user.

This doesn't mean that Amigans without professional interests have to spend all of their computing life indoors. There are at least two very interesting and surprisingly affordable choices when it comes to genuinely portable computing.

Genuinely pocketable

We are talking about Palmtop computers here, machines small enough to fit into the rear pockets of most jeans. Because there are all kinds of technological problems involved with bringing a fully specified computer down to that size, especially heat dis-

sipation, the number of available Minis is rather restricted.

This lack of competition has kept prices quite high over the last couple of years. In fact, with one notable exception, Palmtops have been almost as expensive as the lower end of the Laptop market.

With Sharp deciding to retreat from active participation in the sales battle as far as mini computers are concerned, its PC-3x00 models can be snapped up for under \$700, a price which makes them very tempting indeed. However, for even less than half of that amount, it is possible to purchase an Atari Portfolio offering a similar range of PIM (Personal Information Management) utilities.

To come to the right decision con-

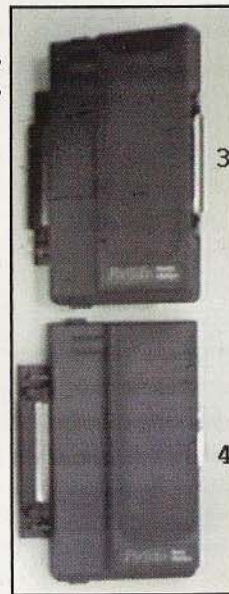
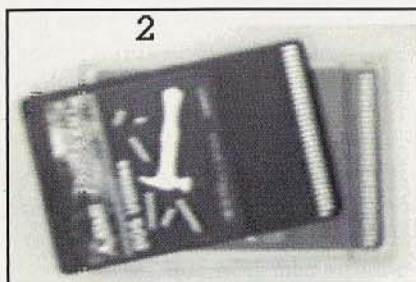
The Atari Portfolio is physically the smallest Dos compatible computer

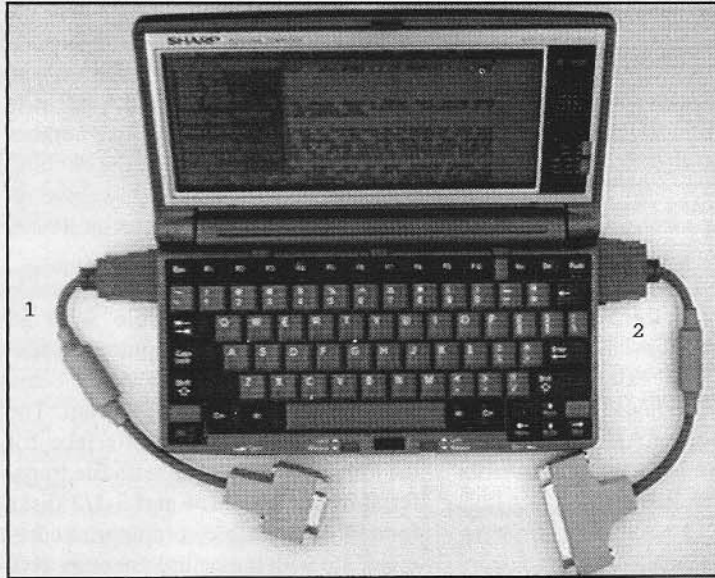
1. RAM card (mounted)

3. Parallel interface

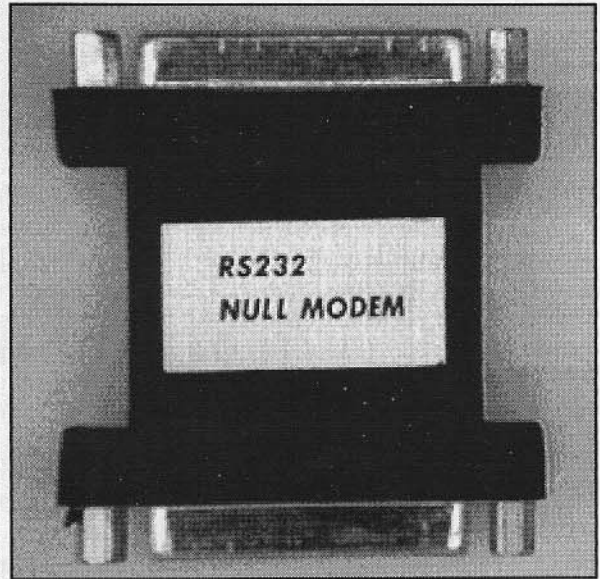
4. Serial Interface

2. ROM cards





*The Sharp PC-3100,
discontinued and therefore a genuine bargain at the moment.
1. Serial port adaptor 2. Parallel port adaptor*



For transferring data and files between two computers directly without a modem, a Null Modem (pictured) or special serial/laplink cable is required

deed. However, for even less than half of that amount, it is possible to purchase an Atari Portfolio offering a similar range of PIM (Personal Information Management) utilities.

To come to the right decision concerning which portable computer would be most suitable to our specific, individual needs and intentions, or even whether to buy one at all, we need to know exactly what we want it for. Neither Laptops nor Palmtops are offering anything near to the multimedia capabilities of even a basic old Amiga 500.

This means if we wanted to compose music, or title our latest home video epic, we would certainly do it on our desktop Amiga. Graphics? ... Well, it would be nice being able to draw up a few sketches on the move, should the need arise, but we would hardly feel the urge to paint a masterpiece on anything less than a 14" colour monitor.

Basic facts

So what's left? Wordprocessing is certainly the most important task associated with mains independent computing (or in fact all computing!) apart

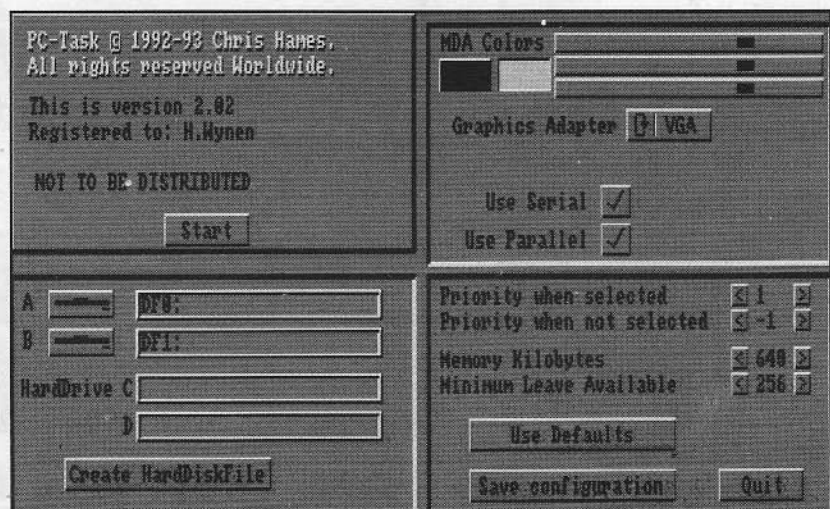
from organizing schedules and phone numbers. Another area of interest would be spreadsheet/database operations. Both the Sharp and Atari are well equipped for performing such duties away from home or the office. Like other Palmtops they are based on the 8088/8086 microprocessor series found in very early IBM PC/XT compatible computers.

This is not exactly state of the art

anymore but still acceptable for the expected use. The Sharp runs at just over twice the Atari's clock speed, not too important for wordprocessing, but a clear advantage when it comes to larger spreadsheets one would think.

However, when processing the same rainfall chart with *Maxiplan 4* on the Amiga 500 and the portable duo, the Sharp, even at full speed (10 MHz), appeared somewhat sluggish

Setup screen for PC-Task, the Australian software PC emulator, which now includes EGA and VGA graphics capabilities in addition to the standard CGA and MDA modes



(25s) in comparison with the Commodore machine (16s) and the Atari (14s). At 5MHz the loading and recalculating time almost doubled to 46 seconds. All three spreadsheet programs read and write Lotus 123 compatible files with a .WKS extension.

Amiga's *Maxiplan* offers that option as a second choice which proved incapable of interpreting high ASCII characters the portables can use for drawing tables and special symbols.

Wordprocessing

Text files produced by the two minis are clean ASCII and can therefore be read into any Amiga text editor or wordprocessor. All basic functions are available, like simple search, adjustable right and left margins, word wrap, insert/overstrike modes and file merge functions.

The clipboard is shared by the other programs, allowing easy inserting of

addresses from the phone book or spreadsheet results into a letter or report. In this area the integrated structure of the portables has some advantages over normal desktop machines.

In addition the Sharp provides AUTO-INDENT, WORD COUNT and rather comprehensive printer setup facilities, although the Portfolio will also allow word counting from inside the application via third party PD and commercial programs. Before we get to the question of external software options though, I should mention that the Address Book (.ADR) and Diary (.DRY) files are fully interchangeable between the two Palmtops.

The right connections

To run additional software on the Laptops, the user can either buy ROM cards containing commercial programs or transfer whatever is needed via a parallel or serial link to and from a

desktop computer. The Sharp also offers the option of connecting a portable floppy drive to the expansion port on the back, but at almost \$400 it is no cheap solution. (There are a number of PD programs which allow running an unmodified Tandy floppy drive on the Atari via the serial port at 19200 baud).

First time file exchange by cable hook-up is only possible with an MS-DOS compatible computer, as neither the Sharp, nor the Atari come with a built-in terminal program. The optional parallel/printer interface for the Portfolio is supplied with file transfer software on 5-1/4 and 3-1/2 disks for a PC compatible computer to communicate with the complementary program in the Atari's internal ROM.

To employ the serial port, which needs to be attached to the same expansion slot as the parallel interface and (optional) pocket modem, either the parallel port plus software is re-

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quired as well or a commercial ROM card with terminal program. With both ports costing around the \$100 mark each and Atari's own DOS Utilities card touching on \$70, it appears more economical to stick just to the parallel port, which also allows the connection of a printer.

There is a hitch, however. Unless you own a PC or have a close friend with one, you will have to use a PC emulator on your Amiga. As the available hardware options are excellent but unfortunately somewhat expensive for the occasional file transfer session, a software solution would probably make more sense.

Software emulation

PC-Task, written by Australian Chris Hames, will do a good job, but you have to put up with extremely slow parallel file transfers. So, unless you want to print directly from the

Portfolio, it appears best to go for the much faster serial port interface and the Dos Utilities.

The Sharp has both ports built in, but the miniature sockets still require adaptors so they can be connected to standard computer I/O devices (about \$70 each). The Laplink program on the internal ROM disk (C:) normally provides extremely swift serial file transfer (plus housekeeping features), although the initial setup, which is supposed to transfer a copy of Laplink to the desktop machine, doesn't seem to work with *PC-Task* running on an ordinary 68000 Amiga.

In that case the only solution is to hook the Sharp up to a real PC, transfer the Laplink software, save it to 720k disk and run it then on *PC-Task*. After setting the transfer rate to 9600 baud (maximum possible rate with *PC-Task*) on both coupled computers, file exchange can be controlled from either machine.

Once the connection has been established, external DOS software can be transmitted to be used on the portables. The Sharp runs most titles not requiring more than CGA graphics (4 colours, 640 x 200). On the more popular PC-3100 with 2 Mb of RAM (PC-3000 has 1 Mb) the user can decide how to distribute the memory between up to 640K for DOS, a RAM disk (E:) and EMS (expanded memory/driver on board). There is also a small 76k drive (D:), which survives even a cold reboot, for storing important data. The best way, however, to keep data and other software secure is on PCMCIA I cards. The Sharp has 2 built-in card drives (A:, B:) with a good locking and eject mechanism.

The single slot (A:) on the Atari lacks the latter and its cards, though similar in dimensions, are a proprietary system. As a consequence they normally only come in up to 128K capacity for around \$120, compared

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Main Board Available			Educational Software in Stock	
Modules Available Soon				

with ca. \$250 for a 512k card fitting the Sharp (2Mb about \$700).

Compax in Sydney has recently introduced a 524K Flash card for under \$400, a first for the Portfolio in this country. The company also provides a service to expand the internal memory of the Atari from 128K to the maximum 512K. Should the full 640K of DOS memory be needed, the user can buy two 256K external units and fit them to the expansion port that also takes the I/O interfaces.

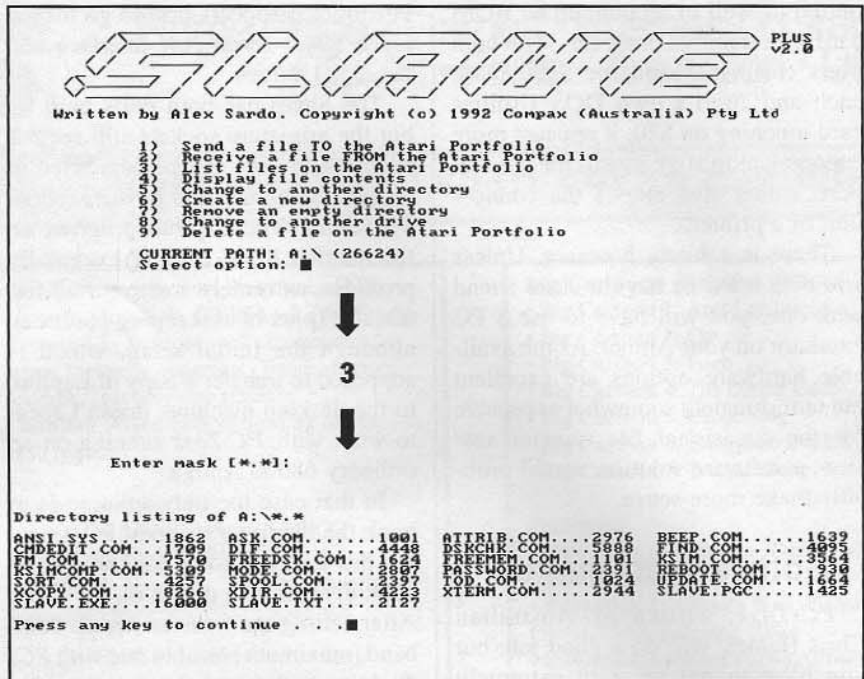
Those memory units also contain an additional card drive, configurable as drive B:, which could be handy for reorganizing disks. Unfortunately the whole setup is pretty large, not very stable and awkward to handle.

For most purposes the basic machine is quite sufficient with 128K, of which up to 64K can be configured as a RAM disk (C:). The reason for this is the low memory requirement of Portfolio specific software. In addition to commercial titles from Atari, Compax etc, the latter also offers a full range of over 500 PD programmes on 3 1/2 inch Dos disks.

These include games, graphics, sound and productivity items taking into account that the Portfolio's screen only accommodates 40 columns by 8 lines (240 x 64 pixels). To run standard DOS software, as long as enough memory is available, the screen can be switched to full 80 x 25 size of which only a 40 x 8 section is dis-



The expansion port on the back of the Sharp accepts a portable, 3 1/2 inch 1.44 Mb high density floppy drive (expensive). The coin slotted lid in the bottom houses the Lithium backup battery



Slave is one of many Portfolio file transfer programs. Here two screens have been merged to save space. Selecting a number from the top display (3) produced the file list at the bottom

played at any one time in a movable window.

Power consumption

In contrast to 386/486 compatible Laptop computers, the 8088 equipped Palmtops in this article run much longer than two to four hours on a set of batteries. Both require three AA cells lasting at least from a full work

day without any major pauses for the Sharp up to about a week for Atari.

When the voltage has reached the critical value of 3V, the machines automatically shut down to preserve enough power for retaining the memory contents. The three volt limit makes it safe to use NiCads, but they should have at least a capacity of 600 mAh for acceptable running times.

On the Portfolio a special capacitor holds enough charge to allow changing the batteries without data loss. The Sharp employs a Lithium cell which maintains power to the standard RAM (DOS/disk E:) for about three minutes before shutting down to protect drive D:. This leaves enough time for changing the batteries.

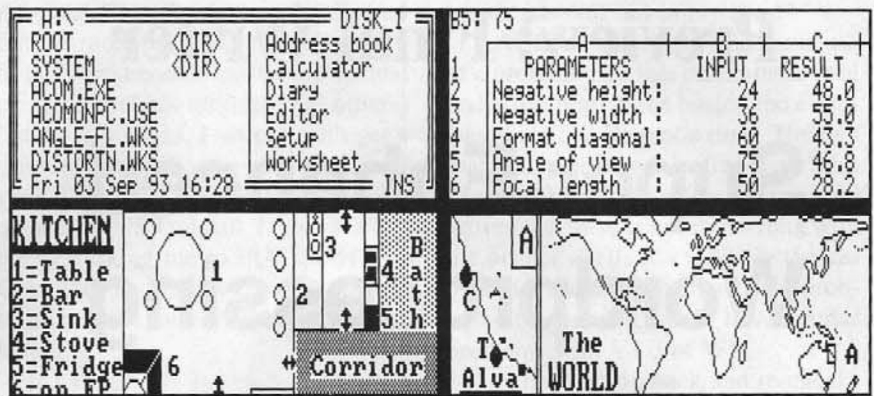
Conclusion

Both the Sharp and Atari are capable of coping with most tasks one would expect to perform away from a power point. With Protext loaded on the PC-3100 and Amiga, wordprocessing becomes a breeze. The Interfaces on the screens are identi-

cal, the same spell checker takes care of typing mistakes and the keyboard on the Palmtop is fun, fast and precise enough for extensive typing.

In contrast the Atari's keys tilt backwards, which requires some getting used to. They are also not quite as precise as the Sharp, missing the odd character, but with 'Key Click' switched on, the loudspeaker confirmation allows quite speedy typing after a short while. The Portfolio's speaker also serves as an automatic tone dialer for the phone book utility, an obvious solution which is sadly missing from the Sharp.

Overall, at around \$500 for a kit which is ready for hooking up to an Amiga desktop machine running either an IBM emulator with terminal program (more versatile but slower) or an Amiga comms package (optimum speed), the Atari appears to be the ideal portable companion for restless Amigans.



These screen grabs from the Portfolio have been taken and converted to common PC graphics format with PD programs written specifically for the Atari. The graphics are only one bitplane and slow, but even extend to simple animations

For those who want maximum flexibility, don't mind the 40% higher price and slightly larger size and don't require VGA and Windows capability, the Sharp will be well worth considering.

Keep in mind that the interlaced

CGA screen means small text. On the Atari the letters are much more generous and easier on the eyes. The 40 column screen isn't as bad as it sounds and it soon becomes good practice to reformat text to 80 columns before transferring it to the Amiga. □



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Preview: Final Writer Super Enhanced Wordprocessing

by Andrew Farrell

The fine line between desktop publishing programs and WYSIWYG word processors has become steadily grayer with every major wordprocessor upgrade. Now it seems there is no longer a distinction between the two. Indeed, with the arrival of *Final Writer*, a new high end version of *Final Copy*, desktop publishing power is now within the reach of your average word processor user.

Power

With some 120 included fonts, 100 EPS clip art images, the ability to wrap text around images, rotate text boxes, squash and stretch words and a whole lot more, *Final Writer* offers features that would put some main stream desktop publishing programs to shame.

A document may be made up of many sections, each with its own preferences, master page and page layout. Pages can have up to six columns, with variable gutters. *Final Writer* also knows about the unprintable area of various printers.

Paragraph sorting, contents, table of illustrations, endnotes, indexes, bibliography, outlines and bullet points can all be produced in a semi-automated fashion too - for those who are serious about doing real wordprocessing.

Configurable

The nine megabytes of installed files are worth their weight in RAM chips. Almost everything on the edit screen is configurable, including the button strip. You can add or delete icons to do just about anything possible within *Final*

Writer. If you find yourself using a particular menu option often, it's no trouble to add it to the tool bar for faster mouse activated selection. Some of the icons are a little odd. Scissors are used for cut, but a clipboard picture represents paste!

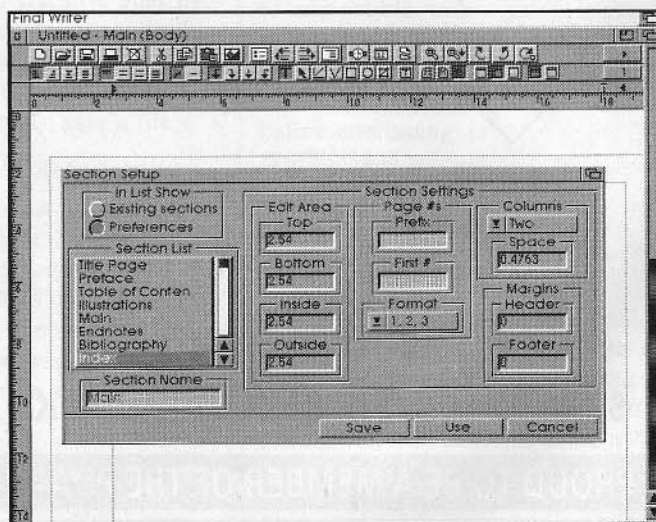
Clip-Art

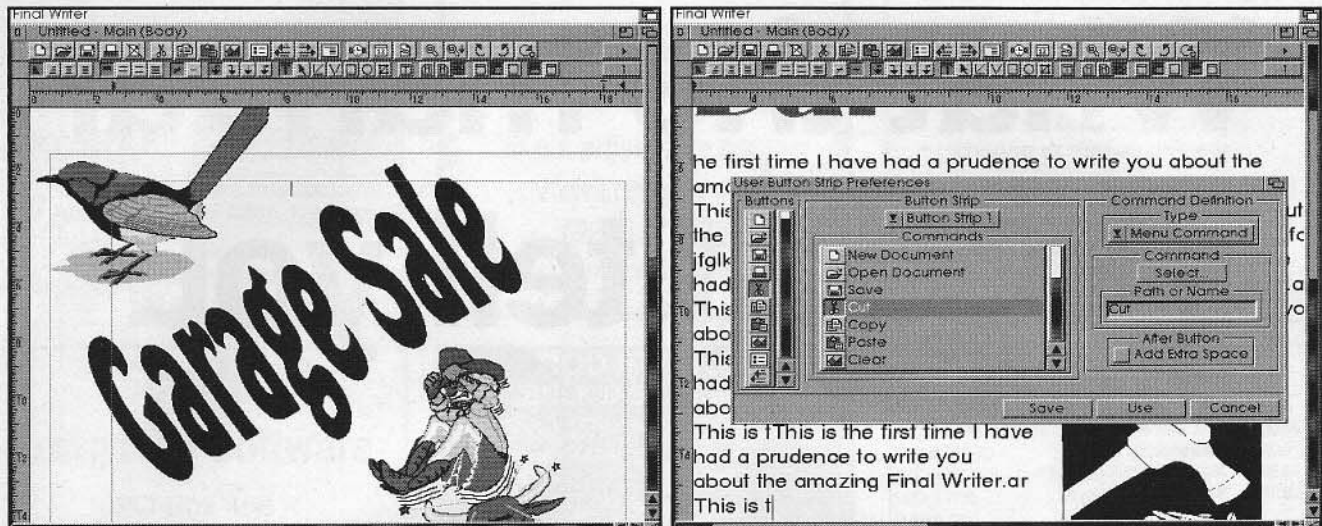
The included clip art is in EPS format. This means you can scale it without loss of detail. Despite EPS being a postscript description of a graphic - which can normally only be printed on a postscript printer - *Final Writer* will happily print EPS clip to any printer. The EPS support makes it easy to include graphics from programs such as *Art Expression* and *Professional Draw*.

Speed

I tested *Final Writer* on my Amiga 2000 with a GVP 33Mhz Combo card. The program seemed a tad faster than the earlier version, and in hires mode the screen tools and gadgets, despite being small, are easy to read and use. The manual is well written, with plenty of illustrations and clearly marked page numbers. It looks like the entire publication was produced using *Final Writer*, judging by the examples included in the colour brochure. This is a fine recommendation for what appears to be a solid, professionally designed package.

Watch for a full review next month.





Highlights

Outline Fonts:

- Includes 120 Outline Fonts
- Size fonts from 4 to 300 points
- Includes 100 EPS Clip-art images
- Compugraphic Type 1 Support
- Easy to learn and use
- NimbusQ Support
- Excellent printing
- Line Spacing control
- Comprehensive User Manual
- Compress/Expand Character widths
- Underline and Double Underline

Word Processing:

- Strike-Thru
- Small Caps and All Caps
- Table of Contents
- Obliquing
- Index
- Superscript and Subscript
- Table of Illustrations
- Color Text
- Bibliography
- Endnotes

User Interface:

- Outline generation
- Named Paragraph Styles
- User-defined button strip
- Named Text Styles
- User-defined "User" menu
- 144,000 word Speller
- Magnified and reduced page views

- 1.4 million word Thesaurus
- User-defined preferences
- Document Statistics w/ Word Count
- Extensive ARexx support
- Automatic hyphenation
- Page guides
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- Multiple Master Pages rulers
- Multiple Columns
- Very Fast Search & Replace

Graphic Support:

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- Paragraph Justification
- Draw Perfect Squares and Circles
- Document Statistics
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- Draw arrow tipped lines
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- Create, move & resize Text Blocks
- Add Columns of Numbers
- Real-time text flow for graphic
- Auto Bullet & Hanging Indent Control
- Optional "Flow Over" Text Flow
- Indent paragraphs left & right
- Depth arrange graphics & text
- Cut/Copy/Paste text blocks
- Cut/Paste ruler

- Scale graphics to any size
- Insert and remove page breaks
- Crop imported IFF and EPS images
- Go to Page, Section or Selection
- Rotate graphics
- Title Page and Preface Sections
- Lock/Unlock Graphics
- Mail Merge
- Group/Ungroup Graphics
- Delete document within program
- HAM, 24 bit & EHB Support
- Show EPS images on screen

Printing:

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What the manual doesn't tell you

by Suraj Gulrajani and Prapakorn Srisaman

The Amiga comes with documentation written in easy to understand English. But as always, the manual doesn't tell you everything. In this article we reveal some interesting and less obvious aspects of the Amiga.

If you don't yet have an Amiga, there are a few features and limitations of which you should be aware. You undoubtedly have seen the eye-catching graphics and have heard the stunning sounds of the Amiga.

Perhaps you think of these as the essence of the machine. They are important, but there are other significant things. Perhaps the most profound is multitasking - the ability to have several programs or tasks running at the same time.

Multitasking

That's rare in computers, and it's even more rare to find an operating system that does it so efficiently and transparently as the Amiga. It's very useful once you get used to it, and one

can easily take it for granted while using an Amiga.

Can you imagine running a database as a background task, while writing a letter, performing a mail merge and formatting a disk? The number of tasks you can run at one time is only limited to the amount of RAM you have available.

In the list of Amiga's features, the ease with which add ons such as printers, modems, digitisers, extra RAM hard drives and the like can be added is wonderful. There's also a huge shareware and public domain software library containing useful programs you can obtain from suppliers all over the country for little more than the cost of a disk.

Limitations!

There are some limitations that may be of some concern to you, however. The basic Amiga 500's processing speed is somewhat slow when compared to some other machines. However, its input and output rates are rather quick, especially output to the screen. The custom processors inside the Amiga allow for quick graphics updating. That's why animations are so smooth on the Amiga.

If your idea of fun is to chop around

inside a machine that has simple architecture, the Amiga is not for you. Its inner structure is quite complex, and you'll have a good deal of research ahead of you before you can take the simplest journey into the Amiga's inner space.

You'll also find your Amiga will be much more flexible with at least two disk drives (or a hard disk) and at least one megabyte of memory.

The Workbench

The manual, *Introduction to the Amiga*, that comes with the computer does a nice job of showing you how to use the Workbench. By the time you finish the tutorial, you should know how to click, double click, select a menu, size a window, drag a window, and do many other tasks along this line. There are a few things, however,



that went unmentioned or were left in vague.

First, it's very important to back up your disks. Put away your original Workbench disk and use a backup for day to day use.

As you go through the Workbench, opening a disk, then opening a drawer within that disk, and so on, you may be surprised at a few subtleties of the Workbench's file handling. Drag a file from one disk to another, and you make a copy. Drag a file from one part of the disk to another say, from one drawer to another and you move it. Drag a file out of its window, to an empty area on the Workbench screen, and it stays there for easy access.

Don't worry, the computer keeps careful records about where files and tasks originate. If need be, your Amiga will ask you to re-insert the appropriate disk when a task tries to access the wandering file again. The Amiga refers to disks as alphanumeric names, so disks swapping is not so confusing as it may seem on other computers.

Using Workbench

When the Workbench loads from disk, the drive runs for a while before the Workbench screen appears. Let it do so; don't rush in with the mouse or start typing something until everything settles down.

If you jump in too quickly, the computer becomes busy with many different tasks at the same time. (Well, ac-

tually most "startup sequences", including the one on the original Workbench disk, perform a number of different tasks at the same time already.) On a faster Amiga, you can launch many tasks one after the other if you're not sure what you're doing. On a slow machine you'll find it frustrating if you just keep clicking away trying to make something happen. If the drive light is on and you're not sure what's happening, wait a moment and see.

Your Workbench configures itself according to a text file called the startup sequence, and any actions done before the opening sequence is finished may interfere with your Workbench environment. It is best to wait it out.

From time to time you will find the need to edit the startup sequence. No doubt you'll find out it is difficult to get it right the first time around. We will give some pointers about this later on. (Workbench 2.0 users will find this less of a problem.)

There's often more on a disk than what you see in the disk's window. The Workbench only shows icons for those files that have a special "info" file associated with them.

To see the rest you'll need to go to the Command Line Interface (CLI) or use a "shell" of some sort.

Trashcan

If you drag something into the Trashcan, it's not actually deleted, so



you do not free any disk space. That's because you're allowed to sort through the contents of the Trashcan.

If you change your mind about discarding something, drag it back out of the Trashcan and put it wherever you want it to belong. If you're sure you'll never want that item again, select the Trashcan icon, go to the disk menu and choose the Empty Trash option. All items in the Trashcan directory are discarded, and the disk space is reclaimed.

Here's another way to throw away files: Select the items you want to throw away, go to the Disk menu of the Workbench screen, and choose the Discard option. This deletes the file and reclaims the disk space right away, so be careful.

Empty drawer?

Why is there an Empty drawer on the Workbench disk? To give Workbench users something to copy when they need a new drawer. To make a

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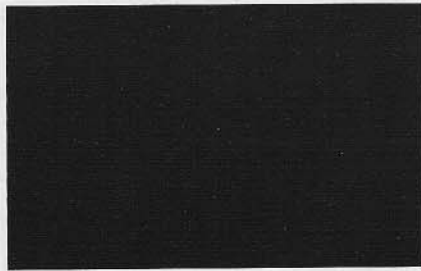
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new drawer, select the Empty drawer, go to the Workbench menu of the Workbench screen and select the Duplicate option.

Now, use the Rename option in the Workbench menu to give it the name of your choice. This new drawer may be dragged anywhere on the disk - even within another drawer. Life is easy for a Workbench user, isn't it? (Workbench 2.0 users can use the Make New Drawer menu option instead.)

After you've moved an icon to a desired place within a window, fix it

in place by calling Snapshot on the Special menu. If you're redecorating a window and have moved several things around, log all of their new positions by performing "multiple selection" - select each item with the left mouse button while holding down the shift key - before calling on Snapshot. (Under Workbench 2.0 you can select a group by making a box around them, or using the select all option.)

Preferences

Double-click the Preference icon (or drawer under 2.0) to invoke this program. Most of the options are well described in the manual, but a few features are worth noting.

The first time you use the system, be sure to select the Change Printer and set up the type of printer you are using. Click on the Save button when you're finished to make this change permanent. (Remember that all cus-

tomising of your computer environment should be done on a copy of your original disks, unless you are using a hard disk of course.)

It's fun to customise the mouse pointer. While in Preferences, click Edit Pointer and draw your own. Maybe you'd like to add your initials to the tail of the pointer or to draw a personalised icon. Remember that the pointer has a hot spot - the actual place on the pointer where action takes place - which you can place by using the Set Point box.

Try to pick a logical place for this, so that the user (you) won't be confused while using this pointer. Let's see ... the tip of a finger, the nose of an airplane, the bullseye of a target.

Info

If you select an icon, and then choose info on the Workbench menu, you'll get a lot of information per-



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A very big hello to all my freinds in Taree, and a very big thank you to **Keith Woodward** for his patience and co-operation.



taining to the file or device that the icon represents. There are five types of icons, and the information you get is related to the type. The types are as follows:

Disk: These are the physical disks that you put into a drive.

The RAM: device icon (named "RAM DISK" by default), if it has been mounted, is also treated a disk. When you select Info on a disk, you get the disk's name, its capacity, and how much disk space is currently being used.

Drawer: You might think of a drawer as a filing cabinet. It may contain a number of things (including,

perhaps, other drawers). A drawer is usually called a subdirectory in other tongues of computerese.

Trashcan: A special type of drawer. It can contain things, but this drawer has special responsibilities (as mentioned above).

Tool: A tool is what we would call a program. So when we double-click a tool, we run a program.

Project: This is data to be used by a Tool. In the case of Amiga Basic, for example, the program you write is considered by the interpreter to be data. The program you write is the Project and the Amiga Basic interpreter is the Tool.

Projects are especially interesting, because they may be attached to certain tools. When you double-click a tool icon, the program selected loads and runs.

If you double-clicked on a project icon, the computer loads the default

tool, starts the program, and then loads the project file into the program as data. For example, double-clicking a text file causes a word processing program to be called to handle the file.

You can change the default tool entry, and at times you may need to do so. The most common problem is that when you copy a project to a new disk, the name of the default tool is no longer correct. With Info, you can correct it.

Breaking free from Workbench

Workbench is good for the casual user who doesn't need to learn any special commands. But to gain more understanding and control of the Amiga, you'll need to move onto CLI. Keep reading *Australian Commodore and Amiga Review* for more articles on this subject. □

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Deluxe Music 2

by Daniel Rutter

Electronic Arts are one of the golden oldie Amiga software companies. They were responsible for a whole passel of *Deluxe* programs - *Music*, *Paint*, *Video* and others - but only *Deluxe Paint* really made it big. Very big. Indeed.

The original version of *Deluxe Music Construction Set*, coded by Geoff Brown, was released years ago, at which time it was very impressive. It was then never updated, which made it pretty weak by today's standards. Versions on other computers kept coming out, but the Amiga market was neglected.

Deluxe Music 1 was slow, clumsy and ugly, but it was still the only dedicated stave music program on the Amiga and so it sold a few copies nonetheless.

Translation time. There are two basic sorts of computer music program. One is aimed at traditional musicians, who read the five line stave form of musical notation. This is designed to be easy to read, but isn't that easy to write. The other sort of computer music notation is that used by sequencers, which use a sort of piano roll design in which notes and effects are shown as letters and numbers and scroll past as they play. This sort of notation is

dang near impossible for a human musician to read and play, but is easier to write.

If you already know how to write traditional notation, though, and want to make scores that can be printed out and read by humans, *Deluxe Music* is the way to go. And now it's been jazzed up enough that it can really be used as a proper semiprofessional production tool.

What's new?

The new version of *Deluxe Music* has been written by Talin (David Joiner), also responsible for the classic *Music-X* and the highly successful games *Discovery* and *Faery Tale Adventure*. It's built on the code for a recent Macintosh version, and so has functionally nothing to do with the old Amiga program.

Deluxe Music 2 is superficially similar to its predecessor, but much has changed. Everything now matches Workbench 2+ style parameters, or gets pretty close anyway, and you can run the program on a public screen if you want to. Nothing looks squished or stretched in different resolutions. The interface also includes better keyboard control.

Deluxe Music now supports locale.library in WB2.1+, and comes with a French catalogue. While this feature tends to leave English speaking users unexcited, it means composers all over the world should be able to use the program easily, greatly expanding the possible music sources.

You can view several scores at once - as many as you have memory for - and tuck them away out of sight if you don't want the clutter. This lets you easily cut and paste between scores, so you can grab a melody from one movement and easily import it into another. Unfortunately you can't view several bits of one score at a time, but them's the breaks.

You can record macros to simplify oft-used commands. This is the traditional hit the keys and hope you get it right sort of macro recording, but it's perfectly adequate for many tasks.

If you need more power, the whole program can now be driven through *ARexx*, so expert users can now integrate *Deluxe Music* with many other applications, or set up macros of baroque (no pun intended) complexity.

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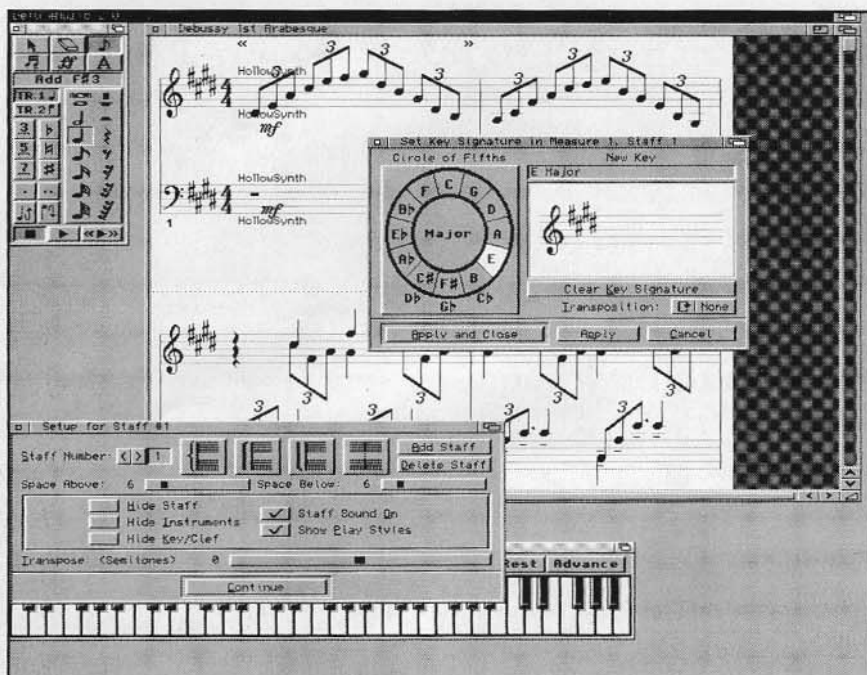
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MIDI Support

While we're talking power users, *Deluxe Music's* MIDI support is considerably augmented by support for the new *camd.library* and *realtime.library*, which let it coexist with other MIDI programs and use third party serial cards. *Realtime.library* also lets *Deluxe Music* sync with animation players for multimedia work.

A MIDI synthesizer hooked up to *Deluxe Music* makes a very cheap but high powered music workstation.

The Amiga's four internal voices are fine if you're writing for a barber shop quartet, but anything more complex needs external hardware. With a synth plugged in through a MIDI interface, you can write for much larger ensembles so that people lacking Beethoven's powers of visualisation can hear what they're building.

MIDI, along with the score presentation, lets you easily transcribe music into *Deluxe Music* from paper,

something which is much more difficult with a sequencing package.

The tool window is much more complex, and now includes every note duration down to hemidemisemiquavers. You can also do septuplets, double dots, flipped note stems, staccato, legato, sforzando and beam notes. The tool window also contains the play, stop and play section buttons, for quick access with the mouse.

These extra tools reflect the new music format used by *Deluxe Music*, Common Musical Score (CMUS), which replaces the old, proprietary *Deluxe Music* format which nobody else ever used or understood. CMUS is going to be a public format, so anyone can incorporate CMUS playback and output in their software.

The dominant Amiga music form at the moment is the hacker-driven *SoundTracker* MOD format, but *SoundTracker* has no capacity for "real" musical composition, being first and foremost a sequenced four track system.

Playback

Deluxe Music 2 also comes with a

freely redistributable player program, to make up for the incompatibility of CMUS with just about everything at the moment. When you write a tune, you can distribute it with the player.

Deluxe Music 2 will load Old *Deluxe Music*, Simple Musical Score (SMUS), Standard MIDI (SMF) and *Music-X* (MSCX) tunes as well, so users of other software aren't left out in the cold.

Scores can now have up to 48 staves in them, and time signatures can have up to 64 beats per measure. Generally, all the old limitations have been pushed back, and *Deluxe Music* is now a Whole New Deal, right down to the comprehensible yet comprehensive 167 page manual.

The Amiga isn't short of music packages. If you're a shoestring operator a \$5 public domain *SoundTracker* clone will do you proud; most professionals will go for a powerful sequencer from the Doctor T stable or maybe *Bars and Pipes Professional*, if they don't mind the Blue Ribbon Soundworks fairground look.

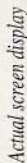
Dabblers can go for *SuperJam*, *Bars and Pipes'* little brother, or a cheap copy of an outdated package like *MusicX* or the ancient *Sonix*. But for people who are musicians first and computer users second, *Deluxe Music* is once again a real option.

For more information contact your local Amiga reseller, or Electronic Arts (075) 911 388. Approximate price \$180. □



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QuickNet

delivers network speed

by Andrew Farrell

Here at *Amiga Review*'s editorial HQ, we have a total of six Amigas. Back in the days of Workbench 1.3, several were networked together. However, with the arrival of version 2.0 of Workbench, our old HydraNet network cards were rendered useless. The networking software was incompatible with the new operating system, and it was decided to ditch the cards and resort to using removable 44Mb Syquest cartridges for moving information around.

Of course, other network solutions have been available, including Novell client software and TCP/IP. Many universities have taken advantage of these offerings. However for mainstream users, the only affordable and readily available alternative has been the somewhat sluggish public domain Parnet system.

Thankfully, a local developer, Resource Management Force, are now shipping an excellent peer-to-peer network called QuickNet. Providing Amiga computing resources for a sizable company in Sydney, the guys at RMF are familiar with the needs of a large network of users.

Their efforts have concentrated on maintaining compatibility and achieving good speed. They have succeeded on both counts. QuickNet allows networked Amigas to share any mounted volume or device. Information can move around QuickNet at around 350-

380 Kilobytes per second when connected to an Amiga 3000.

The transfer speed compares to a full 32-bit 66Mhz Intel 486DX, with local bus - proving yet again the humble 1990 model Amiga 3000 with its

standard Motorola 68030 processor, custom graphics chips and 32-bit architecture is still well matched to the latest in IBM compatible PCs.

RMF have plans to release the card for other Amiga models too, including CD32. Already they have a working gateway to TCP/IP and Novell. An additional ROM socket on the card will allow the QuickNet hardware to run Commodore's Envoy network software - a slightly more sophisticated, but rather slower system.

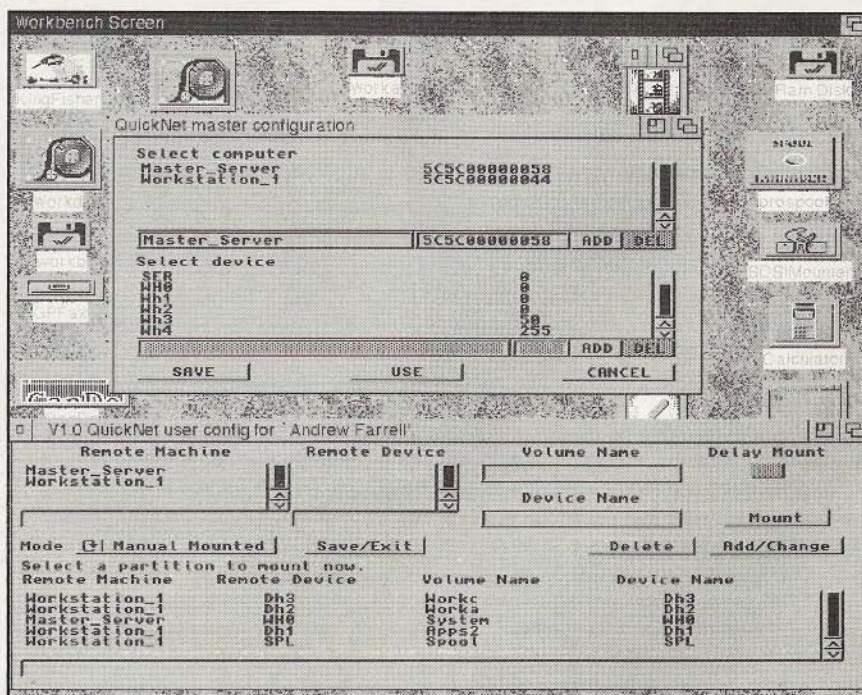
Envoy

There is a good chance Envoy will be available from a third party company soon, following Commodore's announcement recently that certain technology developed, but not currently being manufactured by Commodore, would be available at a very good price to interested companies.

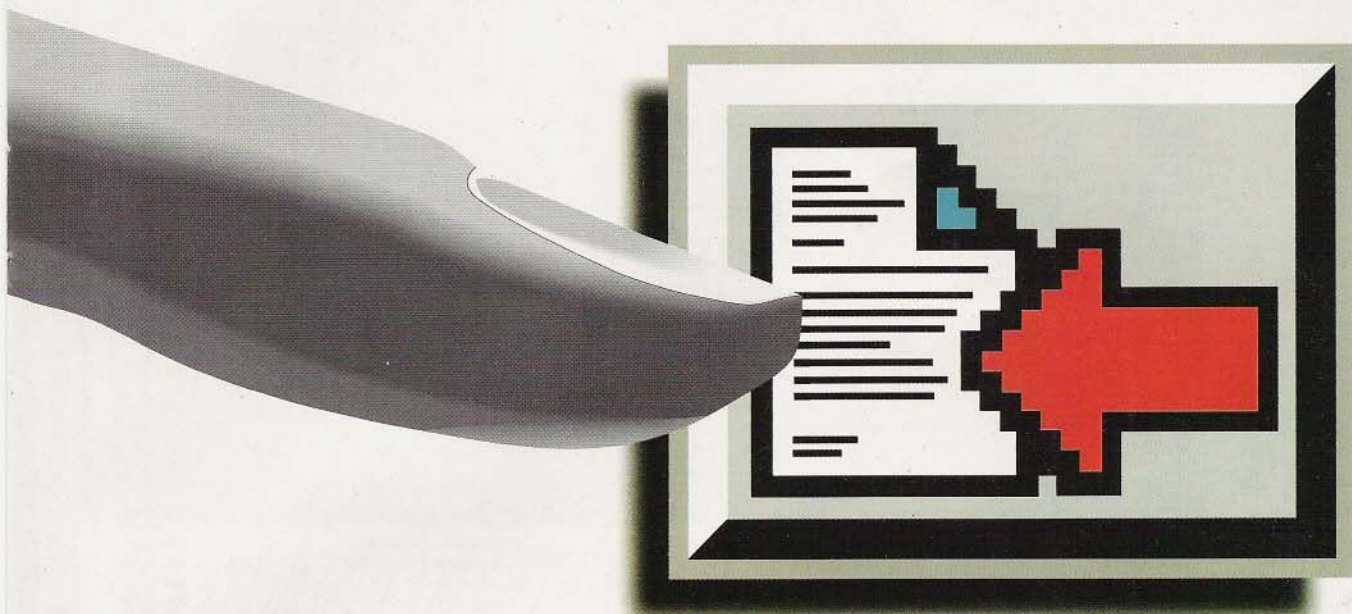
QuickNet may reach Envoy's level

Top Window: The master configuration program records what devices or volumes are available on each machine on the network, as well as maintaining the security settings. The same program allows you to manage the users security.

Bottom Window: The user management program selects what volumes are mounted automatically or when first accessed when a user logs in.



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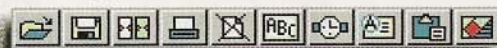
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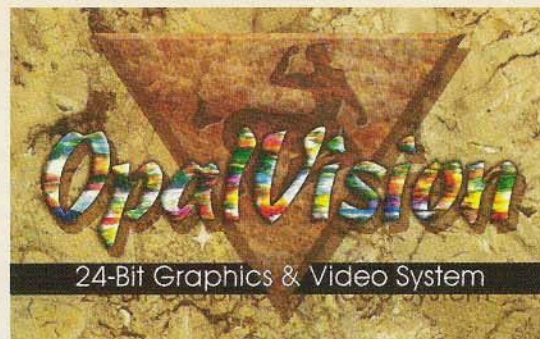
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E & O E

of sophistication in the future - especially in the disaster recovery area. Right now, it's perfectly capable of handling most network requirements. In our office it has made the old ThrowNet system completely redundant.

Where QuickNet gets a little clumsy is when one machine on the network crashes. In our situation, where the resources of every machine are available to all others, this often means everyone has to reboot. If only one machine is offering resources to the rest, this is not necessary. Automatic recovery is planned for a future version of the software.

Indeed, a number of desirable features will have to wait for updates - however some things can be achieved now by using AREXX commands. Launching applications on remote machines is one such function, as is implementing some form of Electronic Mail system.

Security

QuickNet offers a simple hierarchy of security levels, allowing the network supervisor to restrict access to drive partitions where necessary. Each partition is granted a security level from 0-255 and each user receives a similar number - granting access to all partitions equal to or below that number.

Whilst this may be perfectly adequate in most installations, there are certainly those for which it is not. For example, the accountant may need a secure area for storing sensitive information which cannot be seen by the programmer sorts - who in turn don't wish the accounts people to be able to run Quarterback Tools. RMF assure us that a more sophisticated security method will be offered in the future.

It's possible to configure the software so that when a user logs in, an entire Workbench environment is re-

stored regardless of which machine is acting as host.

So, I can log in at a machine across the room, and see exactly my Workbench colours, favourite utility programs and preference settings. I can have access to any hard drive in the room, use a printer across the hall and access a modem on yet another machine.

Conclusion

A network is ideal for anybody needing to share data, move large files around between Amigas, or share peripherals amongst a number of users. QuickNet is simple to install, the software to manage the system is easy to use and the performance is exceptional.

QuickNet sells with software for \$469 per card. For more information call Resource Management Force on (02) 550 4244. □

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Understanding Libraries

by Paul McLachlan

The library is one of those amazing aspects of the Amiga that makes it able to do all of its wonderful tricks using less memory, and also one of the reasons Amiga programs are considerably smaller than their IBM equivalents (if, that is, any IBM program can be seen as equivalent to an ... no, I won't get into that).

Unfortunately, these library things are a bit of a mystery to newcomers. After all, their LAST computer didn't need them, and all of a sudden you're running the latest PD disk, and "You need Reqtools.library". I mean, nag nag nag, I don't need it, this stupid program needs it, right? What does the program need it for? It can't be all THAT important, can it? What is a library anyway?

What do they do?

Okay, let's get down to it. The reason that libraries are so important on the Amiga is that they hold 'routines' (parts of programs) in them. A program can use these routines to do lots of marvelous things, such as: display pretty file requesters, crunch files and load things from disk ... betcha did a double take on that one, huh?

Yep, a library is required just to load a file from a disk on the Amiga. Fortunately this library, along with a whole host of others, is stored in your Amiga's ROM, not on your disk, taking up space.

So the reason a program needs a library is because the program doesn't contain all the necessary code in it to do everything it needs to.

Let us take, for example, the Arp library, which was actually pretty popular until Kickstart 2.0 came along. Nowa-

days, all its routines have been included in the libraries that are in ROM, so there is no need to have Arp on disk. Arp actually stands for 'Amigados Replacement Project', which is not really a coup to take over your machine, it just sounds like one.

This library contained all sorts of wonderful routines that saved the programmers from having to re-invent the wheel every time they wrote a program. Little things that Commodore, well, forgot. So, the programmers simply used the library, and life was pretty simple, since every second program used the thing, then everyone had a copy of it on just about every bootable disk they had.

But then came the library explosion. (No, not like that, not any more than the population explosion was like that.) All these libraries started appearing that either did seemingly useless things, or just did something that nine other libraries could already do. The classic case of the latter being the file requester libraries, which I just counted six of in my libs directory. Arp had one, there's a Reqtools, a Req, even Commodore did one and called it Asl. Okay, so most of these have routines in them other than just the basic file requester, but generally, they perform the same function.

Library disks

Now the problem is, one program uses this, another uses that and so on, until eventually, some program is going to want to use one you've either never heard of, or simply don't have room to install on your disk.

I don't know about you, but the libs directory on my hard drive is a little

over 2.1 meg, and still growing steadily, which really, is a little too large for my liking. Of course, it's my fault as much as anyone's, since I just install every library I come across: I must have this phobia about messages like: 'you need so and so library version 912 or higher'.

We need a solution, something short of installing every library that you see and hoping you never see 'volume dh0: is full' or similar. Well, for the obscure library problem (the one that is useless and none of the programs seem to use it), I'd suggest creating a library disk.

Simply format a blank disk, and in the root directory of this disk place all your libraries. If you then call the disk 'libs', then every time you need a library that hasn't been installed, simply insert the disk and try the program again. This has the magical effect of the program loading the library off the disk rather than your libs: directory. Since you probably won't use that disk very often, even if you have a hard drive it is appropriate.

Actually, I use much the same effect for my FONTS: directory as well: I don't use fonts that often, but every now and again I want some really huge font and I can just pop in this disk. But I digress.

For the multiple library overkill I'd go with the clever solution that that ingenious fellow, Nico Francois (author of Powerpacker, and, incidentally, a requester library called Reqtools) thought up. It's a small (4k) program that is called 'Rtpatch', and it plays around in the never never, probably doing things Commodore never intended to be done, and 'patched' in Reqtools as your favourite library. Now, any program that uses the Req or Arp file requesters will use Reqtools instead, meaning that you don't need those libraries installed, because those programs which use them will THINK that they are there, and instead use Reqtools.

Libraries make it easier for programmers to write for the Amiga, as well as making their programs smaller and similar to each other (your file requesters will look and act the same way for different programs) so I suppose we should put up with these few shortcomings.

After all, libraries are a significant part of what makes the Amiga able to multitask, and besides, we're stuck with them, but at least we all now know why.

CanDo Column

Getting Key Input

by Greg Abernethy

This month I will be discussing the Key Input Object, accessible from the CanDo Editor Main Panel. The Key Input Object is used to detect keyboard input from the user, which can then be interpreted and acted upon.

The Key Input Object has various uses, such as allowing function keys to be used in applications, to screening valid key presses for an old-style MS-Dos menu where you press the letter or number corresponding to the menu option.

The Key Input Object has one major fault, which you should be aware of before designing an application. If you are using fields in your application, and you have a cursor set in a field, the Key Input Object will not work. I have tried various methods to try and get the Key Input Object to work while a field is highlighted, but without success.

How it works

When designing Key Input Objects for an application, take a little time to work out exactly what key presses you want to trap, and what you want to happen when the keys are pressed. The Key Input Object is very powerful but can also become confusing if not used correctly. You can have as many Key Input Objects in your application as you want. As an example,

you may wish to create a Key Input Object for each function key and have a script performed when each key is pressed.

To begin, select the Key Input Object from the Objects section on the Main Control Panel of the CanDo editor. (It's the button with the key with an "A" on it.) Select "Add" to create a new Key Input Object. Examine the Key Input Object Editor Window that will now appear. There are three fields labelled NAME, QUALIFIER and KEY CODE.

You can give each object an identifying name, to help you identify which keys you are checking. A QUALIFIER is a key that is pressed in conjunction with another key to perform an action. For instance, AUTOCLI uses the combination of LEFT AMIGA and ESCAPE for opening a Shell window. You can specify any valid qualifier in this field. You can have a maximum of three qualifiers in the Qualifier field. They must be separated by spaces.

For example "LEFTALT LEFTAMIGA RIGHTAMIGA". It is also possible to check for the mouse buttons being pressed, although I would prefer to use a full-screen invisible button for checking for mouse-clicks on a screen. See the manual for the full list of qualifiers available for use. The KEY CODE can be any key on the keyboard. To examine the vari-

ous keys, click on "Sample Keys" and then press different keys on the keyboard. You will see each key's corresponding code appear in the KEY CODE field.

At this point it is important to examine the codes carefully. Any AmigaBASIC programmers who, like me, have switched to CanDo, will immediately notice that the code does not follow the INKEY\$ convention. All alphabetical keys are uppercase, and the other keys, such as the spacebar ("SPACE"), are words. This makes checking the keys both easier and more difficult (huh?).

If you are checking specific keys then there is no problem, but what if you want to set up a Key Input Object that can check all QUALIFIER and KEY CODE presses. This is achieved by setting both fields to "ANY". In this way all key presses can then be interpreted. This would be most useful for applications such as a Desktop Publisher or a parser for a text adventure game, where you want to examine all key presses and filter out unwanted results.

This is where the problems begin. When you want to check what KEYS and QUALIFIERS have been pressed, there are two variables that contain the required information. They are "KeyPressed" and "Qualifiers Pressed". A sample script for interpreting key presses could be;

```
key = KeyPressed
qual = Qualifiers
Pressed SetText "MyField",qual||"and"||key
```

As shown above, when you press the SPACEBAR the string "SPACE" is returned in the KeyPressed variable. This makes interpreting key presses a bit more difficult. I had designed a little program that allowed you to type with any sized font and did word wrapping and had a fair bit of trouble getting a workable interpreter to handle the strings that were returned. I have listed below an option that you can use for interpreting these strings. It is incomplete, but you will get the idea of how to expand it for your own purposes.

Database Setup

```
Dispose Press
Let Press[1].string = "SPACE"
Let Press[1].code = 32 ; ASCII code for SPACE
Let Press[2].string = "BACKSPACE"
Let Press[2].code = 8; ASCII code for BACKSPACE
Let Press[3].string = "DELETE"
Let Press[3].code = 12 ; ASCII code for DELETE
Let Press[4].string = "HELP"
Let Press[4].code = 139 ; ASCII code for HELP
```

This script creates a list of the strings that are returned by the KeyPressed variable and assigns the ASCII code of that string to a variable. Now for the interpreting script which can be called as follows;

```
Let key = KeyPressed ; get the key string
If NumberOfChars(key) > 1 ; if the string is longer
than one char
Do "Interpret" ; interpret the string
EndIf
```

Interpreting the Key Presses

This is the "Interpret" Routine script;

```
Let s = SearchArray(Press,key,".string",1)
If s > 0
Let code = Press[s].code
EndIf
```

Explanation:

This script searches the Press Database for the key string, checking the ".string" variables only. If it finds a match it returns the record number in the "s" variable. The variable code is then set to the corresponding string code, enabling us to perform the appropriate action.

Performing the appropriate action on the key

Once we have a code for the key press we can then perform the appropriate action for the key press. This script is an example of what you could do to carry out an action on the key pressed.

```
Let key = KeyPressed ; get the key string
If NumberOfChars(key) > 1 ; if the string is longer
than one char
Do "Interpret" ; interpret the string
Else
Let code = ASCII(key) ; the key code has only
```

```
one character
EndIf ; so it is an alphanumeric character.
If code = 32 ; its the spacebar. Print a space
or ignore it perhaps
EndIf
If code = 8 ; backspace. Delete character
left of current cursor position
EndIf
If code = 12 ; delete. delete character under
cursor
EndIf
If code = 139 ; Help pressed. Pop up a help
file here
EndIf
```

This script isn't very fancy, but you should be able to get the idea of how to interpret and carry out the appropriate action for any key press from the keyboard.

It will also be necessary to create an interpreter if you wish to check for qualifiers pressed in conjunction with a key press. For example, you might want the user to press LEFTAMIGA ESCAPE to pop up a Shell such as used in AutoCLI. I would create a separate Key Input Object that only checked for this combination, rather than try to interpret it in a script, but this may not always be feasible if you are using large numbers of key combinations in your application. This would be for you to decide.

If you do use several Key Input Objects, remember that you can arrange the order in which the key checking is carried out. In this way you could put all the specific Key Input Objects above the general Object in the Editor List. In this way all specific combinations will be checked before the general interpreter is used to check the keys pressed.

Final words

As can be seen, the Key Input Object is a very powerful tool for use in many applications, but can also become quite confusing if not used correctly. The main thing to remember is the fault with the highlighted edit field. I am hoping to have designed a Typing Tutor for the next tutorial, to show various aspects of the Key Input Object.

Have fun!

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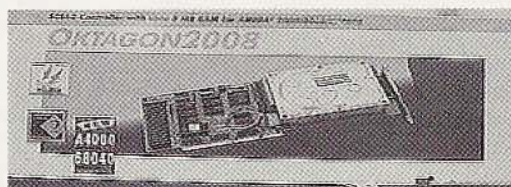


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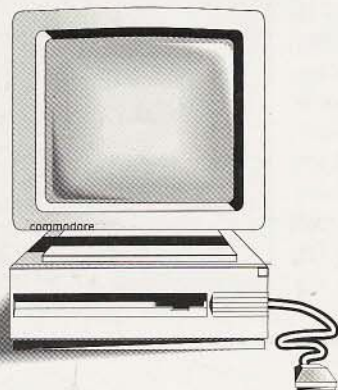
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HOT PD

Another Fish Disk Festival from Daniel Rutter

To get the hottest PD software, you have to have a modem. Libraries are cheap and easy, but they can't get you stuff that came out yesterday, which a bulletin board system can. As regular readers know, one of my favourite systems is Amiga Connection, but since it's pretty much paralysed as I write - waiting to change its operating software - a new board in the Sydney district caught my eye.

Apologies to everybody who lives somewhere other than the (02) area, but now you know how we Sydney-siders feel having to call the mighty Amiga Distributor BBS in Adelaide on (08) 341-5255. Sydney needs a good huge Amiga BBS and Oz Online looks like being it - if it lives up to expectations.

Oz Online, run by Tyrone Rossow and reachable on (02) 264 3636, is still being constructed at the moment. There aren't many users (I'm one - leave me a message!), the file areas aren't doing much yet and the messages aren't all hooked up either.

But Tyrone is taking the board very seriously, and if he doesn't lose heart Oz Online will blow out into a 30 line monster with every Amiga related file and message area under the sun. The board's not just a file repository - Tyrone's making the effort to get a real community atmosphere. Give it a call and check it out; users are what keep a BBS alive!

Fish Festival

Regular readers will know that it's time for my every-other-month Fish Disk Festival again. The Fish disks are up to

number 930 now, and the latest 20 came out on the very first Fish CD-ROM. Fred will keep making floppy Fishes until number 1000; then he'll switch to CD-ROM only. Floppy users will still be able to get the stuff from other libraries, of course, but the only things with Fred's official stickers on them will be the CDs. Fred got hit by Murphy on this first ROM - disk 919, as distributed, actually contained the rather nasty Saddam virus as a "virus to test". This uncharacteristic oversight - it's been ages since anything vaguely dangerous was on a Fish disk - and in Fred's own words:

"Once we were certain that the CD-ROM contained an active virus we halted further distribution of the CD-ROM. This meant that I had to destroy approximately 500 CD-ROM's at the WOC show in Cologne, much to the frustration of local German users who begged to be allowed to purchase them. The optical side was carved up with a knife, I signed the front, and we gave them away as souvenirs of the show."

Fred's lost a fair pile of money reissuing the CD, which might or might not end up reflected in the price, which is now \$US34.95 including shipping. But the disc contains 84Mb of new material including the 20 new Fish and lots of other stuff, 150Mb of utilities and tools and 404Mb of old Fish disks. Not a bad deal, even if the price does go up a bit!

Here's the highlights of the latest 20 Fish floppies.

Fish 912 UU Utilities

UUencoding (pronounced you-you-

encoding) is how you turn a binary file like a program into text characters, for sending it to somebody on an electronic mail network. I don't usually mention comms specific programs, but since so many email users can't figure out UUencoding, *UUArc* and *UUxT* deserve a mention.

UUArc behaves much like other archiving programs - *LhA*, *ARC*, *ZOO* and so on - except it makes UU'ed files. This makes it easy to integrate it into, for example, *GuiARC*, the archiver graphical user interface that last came out on Fish 863. If you can use a regular archiver - not kid stuff in itself - you can use *UUArc*.

UUxT does much the same thing, except it can also *LhA* the file before it UU's it, which is just as well because UUing ALWAYS makes a file bigger than the original, so you need to do some compression first for best efficiency.

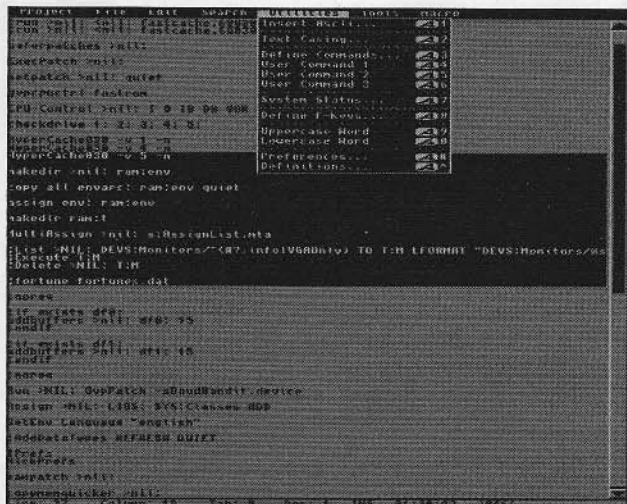
UUxT can do multiple files in a single step and supplies a graphical user interface, but it was a bit flakey on my system. People with fewer than (checks) 76 things running at once will probably find it more stable.

Fish 913 Assign Tools

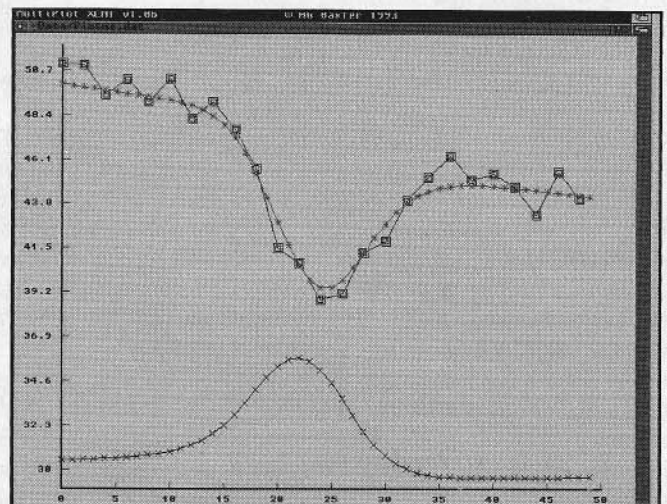
On Fish 913 there's another pair of related utilities; *AssignManager* and *AssignPrefs*. Both aim to make all those custom assigns easier, by giving you another prefs program that takes care of them. Personally I still like *MultiAssign* (Hot PD 4, available from Prime Artifax), but these are worth a look if you want something more friendly. They both need Dos 2 or higher.

PickStartup, on the same disk, lets you select a startup-sequence of your liking. This means you can have several startups, for example for different games or running a system with minimal background tasks so huge programs get the RAM they need. It needs DOS 2, too.

Still on 913, the delightfully named *StickIt* is a computer replacement for the Post-It note. It lets you stick notes onto your screen which will be displayed every time you boot. You can have an unlimited number of notes on screen; notes remember where you left them and can have different fonts, colours and



EdWord Pro - Fish 924



Multiplot - Fish 918

sizes. It's an excellent little package if you're apt to forget things. Needless to say, it needs DOS 2 too.

Fish 915 Blitz2Demo

Blitz is a ravaging monster version of the BASIC programming language with features borrowed from PASCAL, C and others. Blitz2 can genuinely be used to program any type of software, against AMOS which isn't really much use for serious stuff. Fish 915 contains a demo version, with the "create executable" option crippled; apart from that it's fully working!

On the same disk there's an update to **StatRam**, which I mentioned in the September issue. It's a very fast WB2+ recoverable ram drive. This version, 2.1, fixes the bug that caused *StatRam* to screw up on some machines, and includes a slightly better manual. G'wan, read the back issue if you're interested!

Fish 916 ChangeMode

This is a utility to change the screen type and overscan of a picture or animation. Feed *ChangeMode* the picture and it gives you the options; you can bounce whole directories full of pictures into different resolutions. It's not as powerful as it sounds, though; some picture headers it barfs completely on and it can't convert pictures into resolutions

with more or fewer colours. Still, worth a look.

The same disk contains **WBrain**, one of those puzzles for people who like untangling steel wool. The accompanying picture will not make the mechanics of this game any clearer to you, and you should count yourself lucky. It takes a special sort of brain to appreciate it, and I think most of those brains have been carted off to lightning-wreathed mountaintop castles by creepy little pop-eyed hunchbacks.

It needs WB2, too. Build your own Workbench 2 ROM, it'll be easier.

Worms, also on 916, is a rather nice screen blanker and input blocker - it puts a pretty little wriggling worm display on the screen, and stops cretins from stuffing up your computer by locking out all input except its secret key combination. Selectively useful. Needs, wait for it, WB2.

Fish 917 MandelMania

This is a very fast Mandelbrot and Julia set calculation program, that does Lyapunov space too (see *Lyapunovia* review, September issue). It can create animations automatically via ARexx script files and includes on-line AmigaGuide help and AGA support. If you've ever wanted to get into playing with those rather cool fractal graphics, this is the program for you.

Fish 918 Multiplot

This is the program I use for the performance graphs that accompany quite a lot of my reviews. I dress them up in *Deluxe Paint*, but *Multiplot* does the spadework. I don't use a tenth of its features; *Multiplot* will build just about any graph you could ask for.

Multiplot's got automatic scaling, zoom and slide with clipping at boundaries, a range of output file formats and publication quality printed output from any Workbench printer, on top of the usual stuff like different sorts of graph, equation fit and so on.

The last version of *Multiplot* back on Fish 572, was pretty good; this one adds various minor bugfixes and a modified interface.

918 also has **WBVerlauf**, the program to put hip and groovy rainbow colours behind the Workbench on AGA machines. This version's been turned into a commodity for easier operation and adds a configuration window, localisation and bugfixes. Fab.

Fish 919 Touch

Touch is a utility used on computers running the UNIX operating system. If you *Touch* a file, its date is set to the current date. This Amiga version is exactly the same as the UNIX one, right down to creating an empty file if the

PUBLIC DOMAIN and SHAREWARE

specified one doesn't exist.

TxtCvt, on the same disk, converts PC text documents from Microsoft *Word* or Windows *Write* to pure ASCII format, getting rid of all those irritating formatting characters.

Fish 920 AmigaGuide

Commodore's hypertext documentation system, working much like the Help system in Microsoft Windows only sexier. This is the latest version, an update to the one 50 disks earlier and with all sorts of programmer's support stuff included. Works on 1.x and 2+ systems; get it!

920 also has **BigAnim**, an animation player capable of "direct from disk" playback, with user selectable buffer size and playback speed. It's a great way to show animations much bigger than your free memory, and it goes very quickly, particularly on AGA machines. It requires WB2 or higher.

Fish 921 CapShift

This simple commodity turns the shift key into a caps lock toggle key; if caps lock is off, the shift key produces an upper case character, as usual; if caps lock is on, the shift key produces a lower case character. You can also disable caps lock when a function key or a qualifier is pressed, to avoid those moments when you reALISE YOU'VE HIT IT BY MISTAKE.

921 also contains two little Workbench games. There's a rather lame **Pacman** game and also **MiniIsola**, another fiendish little puzzle but not nearly as excruciating as the last one. Fun.

Fish 922 WBSearch

This is a multi-tasking Workbench AppMenuItem file search utility. It puts a "search" option in your Tools menu; you click a device or two and select the option, tell it what characters to search

for and it burns off through the devices looking for files with those letters in their names. You can have several searches running at once, and it seems bulletproof. Needs WB2, of course.

Fish 923 CryptoKing

Cryptograms are those puzzles with letters randomly substituted for those in a phrase; you have to figure out what equals what in order to read the phrase and win the game. *CryptoKing* is a shareware program that puts the game onto your screen, making it much faster and therefore more fun. I didn't think I'd like it, but I did; take a look.

Fish 924 EdWordPro

If you're after a cheap text editor, look no further. *EdWordPro* is a shareware text editor with all the usual stuff as well as up to 15 documents in memory, a Macro facility, automatic case

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AMIGA CD³²[™]

Technical Specifications

Product	Amiga CD32
Clock Speed	14.19MHz
Processor	Surface-mount Motorola 68EC020 microprocessor
Custom Chips	AA multichip coprocessor system for video, graphics, sound and DMA
Chip Memory	2Mb 32-bit RAM; as standard
EEPROM	1Kb non-volatile memory for high-scores and game position saving
ROM	1Mb
External Interfaces	Game controller/mouse/joystick (DB9 male, two) Aux connector to both keyboard and highspeed serial port Colour composite video RF modulator and S-video Right and left stereo audio phono connections
Internal Drive	Dual speed CD-ROM drive transfers data at 150Kb and 300Kb per second
Video Display	Output type: colour composite; RF modulated; S-video interlaced and non-interlaced; up to 8 bitplanes
Graphic Modes	AA custom chipset produces resolutions ranging from 320x200 to 1280x400 (more with overscan, including 800x600). Colour palette of 16.7 million colours. 2 to 256,000 user definable colours displayable on screen
Sound	Four channel stereo sound, 8-bit D/A converters, 6-bit volume and CD-audio
Power Supply	23 watts, switching
Dimensions (WxHxD)	Approximately 311mm x 81mm x 212mm

OSCAR

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- Picture quality is based upon showing up to 256,000 colours from a palette of 16.7 million colours which means it performs better than arcade quality games.
- CD's can store up to the equivalent of 660 computer disks of information which enables stunning audio, visual, graphics, speed and fun to be incorporated into this latest generation of video games.
- Built in expansion areas for future add-ons.
- Ability to play industry standard full motion video CD's and movie CD's with optional plug-in cartridge.
- Video games to be priced at an average of \$69.
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changes for keywords, 12 possible screen resolutions, a full ASCII table, powerful search routines, vertical blocks, a built in calculator, a word count, the ability to sort a piece of text alphabetically and, of course, much more.

This demo release has an annoying "register me!" window every three minutes but otherwise works fine; if I didn't already have the far more expensive CED and *EdWord* didn't have a rather stupid file requester I'd be tempted.

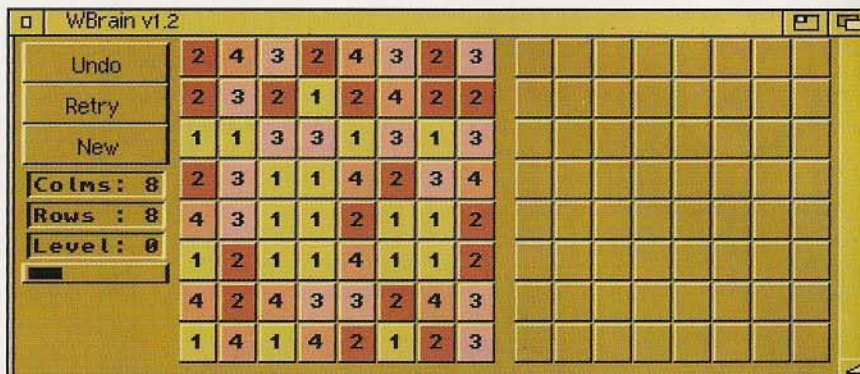
924 also contains a pile of Chas Wyndham's programs, all of which are designed to take text files, pictures, animations and so on and turn them into compressed self-executing files, that need no external viewer. *S_Anim5* does animations, *S-Exec* does programs, and *S-Omni* does almost anything, including virtually any combination of a data file and an appropriate tool.

Scripts (with all the files called in the script), installation files, demonstrations, tutorials, can all be made completely self-contained, needing no special libraries or external support. This is rather cool, and all of these programs are freeware!

Fish 925 DonsGenies

Professional Page from version 3 has included the ability to use ARExx "genies" to automate complex routines; sort of monster macros, if you will. This pack has nearly seventy genies, plus some supporting material. None of them are utterly amazing, but the booklet one's nice; it automatically jiggers a load of pages around so they'll print in such a way that you need only fold the sheets right to get an A5 booklet.

SoundMachine, on 925 too, plays



WBrain - Fish 916

RAW, IFF, VOC, and WAV sound files, without conversion. This lets you play all those grillions of IBM sound files on your Amiga with no fuss.

I prefer to use *SOX* to convert files over, but playing them in native format has its advantages. Two versions are included: one with an Intuition interface and a smaller CLI version.

Fish 928 Annotate

This is another text editor for DOS 2.0 and up. Features include folding (hide away chunks of document you don't want to look at), shifting, full clipboard support, macros, a scroll bar, editor buffering, printing, text locking, tools menu, and a full ARExx Port. This slightly bugfixed version isn't as powerful as *EdWordPro*, but then again it's free.

928 also contains *PriMan*, a task priority manager along the same lines as *TaskX*, but prettier and configurable. It requires OS2.0 or greater, and lets you crank the priority of tasks in your system up and down to stop dumb programs glomming CPU time they don't

need or getting paralysed because they set themselves too low.

Fish 929 WBvwm

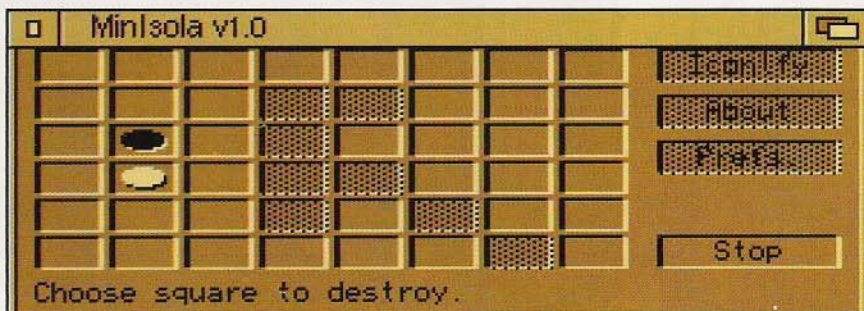
This rather cool little gizmo lets you use a huge scrolling Workbench screen under WB2+, and get around it easily without scooting about with the mouse hunting your windows. *WBvwm* opens up a small window representing the entire Workbench area, with little boxes to represent windows. By moving an object, the corresponding window can be placed anywhere. You may also instantly move to any part of the Workbench area by double-clicking in the corresponding area of the *WBvwm* window.

Fish 930 QuadraComp

This is a sort of shareware Intuition *SoundTracker* - it lets you write tunes and loads most *SoundTracker* modules but doesn't use the bizarre non-Workbench interface every *SoundTracker* clone sports. *QuadraComp* features 128 kb x 256 samples, 256 rows x 256 patterns; compatibility with any screenmode and a spectrum analyser; it's no *ProTracker* despite its big numbers but it's worth a look, if only for curiosity value. Requires OS 2.0+.

The entire Fred Fish library is available from Prime Artifex on 008 252 879 (Sydney callers 879 7455) - and the price per disk drops with the more you order. That's about it for this month; I've already collected all sorts of interesting stuff for next month's companion disks, so I'll see you then!

MiniIsola - Fish 921



AMOS Column

New extensions for AMOS Pro

by Wayne Johnson

There's a couple of new extensions out for AMOSPro (V1.12 and up only). These extensions contain some of the handiest commands in any extension I have come across! With some commands cutting down multiple lines of AMOS code to single commands that are often faster than the AMOS versions, sometimes up to 300% faster! These extensions are compatible with the new compiler and they get even faster when compiled.

Both of these extensions were written in Germany.

JD Extension

The JD Extension contains 103 new commands that include the following categories.

a) **TIME COMMANDS:** Commands for reading and setting the date and time as well as various other time commands that convert the time into seconds.

b) **INPUT COMMANDS.** Three new POWERFUL input commands. One allows only NUMERIC input, another simply returns the key being currently pressed and the most powerful new command is the new string input command. It is much the same as the AMOS Pro version except that you can now specify a prompt instead of the usual "?". But main bonus is that it gives you FULL editing facilities similar to intuition's string gadgets. You can now move the cursor to the left or right, erase the full string with a single key-press as well as numerous other editing functions; a bit like Workbench's Shell.

c) **WAIT COMMANDS.** Four new wait commands including simply wait-

ing for a mouse button and returning a value for the button hit, stopping until any mouse key has been hit, waiting for one of the Amiga keys to be hit and the most powerful command is the new command that waits for a key. With this command you can pass the exact keys you want to test for, and the ascii value will be passed back into your calling variable.

d) **CHECK COMMANDS.** Commands for checking things like diskchanges and if the printer is accessible. But it also has commands which calculates sector Checksums as well as Bootblock Checksums. There is even a command to test whether a number is ODD or EVEN.

e) **STRING COMMANDS.** 17 new string manipulation commands. Including the ability to ENCRYPT and DECRYPT a string, two extremely powerful commands to CUT & PASTE into a string! Two commands for UPPERCASE & LOWERCASE string conversion. A very fast command to COMPARE strings, a command to count the occurrences of a string in another, say we wanted to count the number of P's in this sentence ... "PLEASE DON'T PAINT OUR PRETTY POPPIES", the value returned would be 6, this also works on larger strings not just single characters. There are still more commands that we have not even touched on in this category.

f) **CALCULATION COMMANDS.** New commands for complex calculations including Pi, Percentages, converting OCTAL numbers to Decimal and vice-versa.

g) **BIT COMMANDS.** AMOS equivalents of M/L commands for bit manipulation such as ASL, ASR, LSL, LSR, ROL, ROR, ROXL, ROXR etc.

h) **TRACKDISK COMMANDS.** Very handy routines that allow you to interact with TRACKDISK such as format a disk, read & write sectors, install a disk, copy a file to a new destination with one command. There are three commands that put all HARDWARE Devices, VOLUME Names & LOGICAL Devices into a string. Simple commands that allow you to interact with files such as - determine the length of a file, return the file type, whether it is a file or a directory, set and read a files PROTECTION Bits & COMMENTS.

i) **FONT COMMANDS.** Handy commands to set your font by its name and size as well as measure the height and width of individual characters in a font.

j) **SCREEN/WINDOW COMMANDS.** New commands to interact with screens such as being able to determine the number of BITPLANES in a screen, switch screens on and off. There are even commands to return pointers to intuition SCREENS, WINDOWS & RASTPORTS. The last two very handy commands allow you to calculate the distance between two points either along a straight line or using an ARC.

k) **SCREEN OUTPUT COMMANDS.** Allow you to scroll text in special ways onto the screen, some great effects are available. There is even a command that prints a string with sound effects just like a typewriter. There is a command to do HEXDUMPS & print text to the screen using a different font. The last two commands draw SPLINES and ANGLES with ease!

l) **SCREEN COPY COMMANDS.** New commands that allow flasher screen copies from one screen to another.

m) **OTHER COMMANDS.** Miscellaneous commands that allow you to reset the computer, read the largest amount of both CHIP & FAST RAM available at the time. There are even commands to allow you to DE-CRUNCH POWERPACKER DATA files!

Virus Extension

The Virus Extension has a number of extensive Virus Finding commands, as

AMOS COLUMN

well as an assortment of general purpose commands that are not available in AMOS Pro. These general purpose commands are my favourite because they're generally little extras that most people seem to always be after.

General Commands: There are 22 commands in this section. There are commands for copying chunks of memory around very fast! There is a command that checks whether the read/write head is above cylinder 0 in df0: Another command returns the version of EXEC LIBRARY in use. There are a couple of commands to turn TASK SWITCHING OFF & ON, this will speed up your programs by at least 5%. As well as commands that turn INTERRUPTS ON & OFF!

There are some new commands to check the status of the printer, they are able to check whether the printer is busy, off-line, paper is in or the printer is on-line. There is a command that returns the processor installed as well as if there is a maths co-processor. Another returns the Power Supply Frequency.

Another handy command allows you to TURN ALL FLOPPY DRIVES OFF, this will return around 20k per drive back to the system. You can also reset the computer with a single command as well as check to see if the disk in the drive is write protected.

Antivirus Commands: There are a total of 14 new Anti-Virus commands, these allow you to do things like return the ExecBase pointer, clear the COLD CAPTURE, COOL CAPTURE, KICKCHECKSUM, KICKMEMPOINTER, KICKTAGPOINTER & WARM CAPTURE vectors to 0. You can also read those vectors as well.

Virus Finder Commands: This version is able to detect and kill the following Viruses ... AEK, BITCREW, BYTE WARRIOR, DISK DOCTOR, DISK HERPES, GADAFFI, IRQ, LSD, MICRO SYSTEMS, REVENGE, SCA & VKILL.

These extensions are available on the same disk complete with a 23 page printed manual from Public Domain

Plus, PO Box 791 Hornsby, NSW 2077 for just \$14.95. They've also got a large range of AMOS related products and you can get a catalogue disk from them for just \$2.00. These guys seem to be the new hot favourites for AMOS stuff. They might be worth keeping an eye on for the following stuff in the news below ...

News, news, news

There's good news and bad news, and as usual, I put up my disclaimer for any information that I present here. This is because, along with my usual calls, I get the odd one that is rather annoyed at what I have published here. Sometimes people think I control the delays and bugs that go along with AMOS. Nevertheless, here it is:

● AGA is off until February. Expect further delays (it's like a bad train trip, eh?). This is because of the PC version and Francois is obliged to finish the Workbench Extension first. In my opinion I feel that this is more important as

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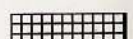
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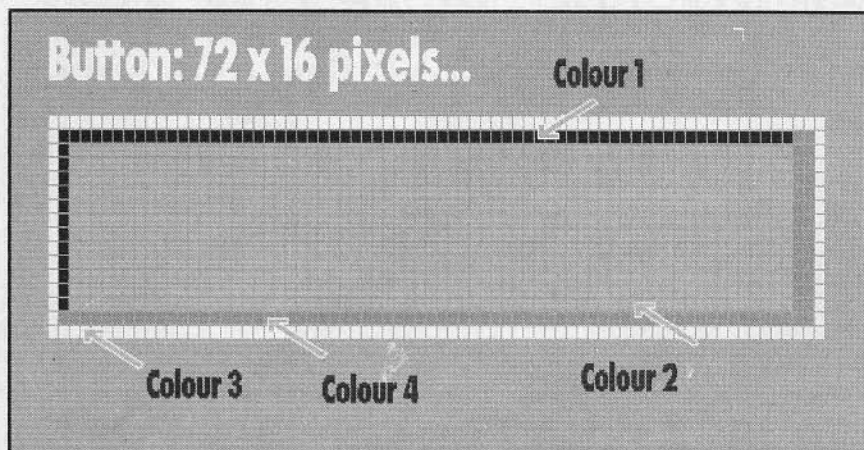


Figure 1

well. If you want AGA in a hurry, I might be able to help. Check next month!

● The latest version of the Turbo Extension is v1.76. This version (for both Creator & Pro) contains some bug fixes and the new commercial version containing the long awaited vertical blits should be, no doubt, available through Public Domain Plus by now.

One of the nicest inclusions in AMOSPro would have to be the Interface Language. This is a language structured similar to AMAL that allows you to create buttons, gadgets, sliders, test boxes and all sorts of things on screen to produce a graphical front end for a program. The manual, however, has made trying it a little off putting. Although it seems difficult, it's extremely easy and powerful.

For example, if you wanted to write a calculator program, you could create a box containing many buttons and a display screen. This could also be done in standard AMOS by drawing your screen in a paint package, creating the pushed in images of the buttons and turning into a bank of BOBs, and then setting zones around each button as well as coding each button to reverse when it is clicked on.

Interface does all that for us. All we need, in order to create an interface, are the following two things:

- 1) An IFF screen containing all our own gadgets (or you can use the default)
- 2) A string containing our interface program.

Let's start off by going into a paint package to create a few buttons:

1. Select a screen that's 640 x 256 and 8 colours (Hi-res interfaces look best for most applications). Turn on the measuring tool (shift + "\") in *Dpaint & Brilliance*).

2. Set the palette as 0=999, 1=fff, 2=bbb, 3=000, 4=777, the rest can be any colours you like.

3. Draw a hollow black box that is 72 x 16. Fill it with colour 2 and make changes to it as shown in figure 1.

4. Make a brush of the button and paste it below the original button. Now that we have two identical buttons, fill colours 1 & 4 (white & dark grey) with colour 2 (the grey button centre). This should make the second button look like the one in Figure 2. This second button is what our button will look like when it is clicked on.

5. This part is very important. We deliberately made our button images 72 wide because this is divisible by 8. All objects have to be created within 8 pixel boundaries, however, the height can be any amount. For this reason, we need to cut out the buttons as a brush and place them exactly on the left hand side of the screen or on any 8th pixel of the screen. However it's easier just to place them against the left hand side.

Be careful not to go too far left and go off the screen. You don't want to shave a pixel or two off your buttons! Save this picture out.

6. Boot up AMOSPro and Select the RESOURCE ED. from the USER menu. Click on "create new bank" and then on "edit graphic elements". You will be prompted to select an IFF picture file.

Select the picture you created previously. What we have to do here is to define each image (our button) as an element.

7. Click on NEW ELEMENT (should already be highlighted) and then on GRAB ONE ELEMENT. Here you can drag a box around the first button just like cutting out BOBs in the BOB grabber, or you can drag a box anywhere on the screen at the size of 72x16 and release the left mouse button. What you have is a transparent square under the mouse that you can place on our first button image and click the left mouse to position it. Either method will define the first element (button image 1).

8. Do the same as step 7 for the Button Image 2.

9. Select QUIT and click on SAVE AS. Save out our custom made Resource bank.

10. Select EXIT and go to Direct Mode. Type: Load Fsel\$("") and use the requester to load the Resource bank that we just created. The resource will load into bank 16.

That's it for the moment. We can now start to program using the Interface Language ...

Programming the interface

Now that we have a bank attached to our program (even though we don't have any code yet!), when we save, the bank will be included with it just like a Sprite or Music bank. As I mentioned before, Interface programs are stored as strings. A bare interface program consists of the following code:

```
Resource bank 16
cls 0a$="EXIT;"
Dialog open 1,a$
d=dialog run (1)
Do
Loop
```

The above program simply lets AMOS know that the resource to use is in bank 16. An interface program is defined that simply performs an exit, and it is called by opening up a channel to run under interrupt. The program contained in a\$ should consist of many instructions and then terminated with the EXIT; function.

Let's set up a simple button on the screen. Replace the a\$ line with the following:


```
a$="BU 1,160,100,72,16,0,0,1;[UN 0,0,1;][BR 0;]"
a$=a$+"EXit;"
```

Now, I'll explain the above Interface commands. BU stands for button and is used to position a button on the screen. The parameters used in the above BU example are:

1 = Number assigned to this button (button 1),
 160 = X position,
 100 = Y position,
 72 = number of pixels wide (divisible by 8),
 16 = number of pixels high (no rules for height),
 0 = the current value of this button (usually is 0 because it is not being clicked on)
 0 = the minimum value this button can be,
 1 = the maximum value this button can be.
 finally, a ";" is placed at the end of the command and it's parameters (just like in AMAL).

Next we have a set of square parenthesis ([]) in which we can define extra information. For buttons, it is vital that we place a UN command in here. This command is the UNpack command that places the actual image of our button onto the screen. If we don't include it, and just leave the parenthesis empty, the button will be on the screen, BUT YOU WILL NOT BE ABLE TO SEE IT! This is because no image would have been pasted to the screen.

The UN command works like this:
 UN 0,0,1;

The first value is the horizontal offset in pixels from the true button position and the second value is the vertical offset (this allows you to click on a button that is not really on its true zone; why you would ever want to do this is beyond me at the moment ...).

The third value is the image number in the resource bank that we want to use. We only have two images in our bank (1 = Button up & 2 = button down), so we set this to one.

You can use UN in another and better way: UN 0,0,BP1+;

This tells the interface system that you want the button to start with image 1 but increase the image each time it is clicked on. The images that appear will depend on the last three values set in the BU command (the current, the min, and the max button settings).

We really only want to use our two images. At the moment, our program will alternate between the two images for the button when it is clicked on. This means that our button is currently an on/off toggle button. If you want a workbench style button (returns back to nor-

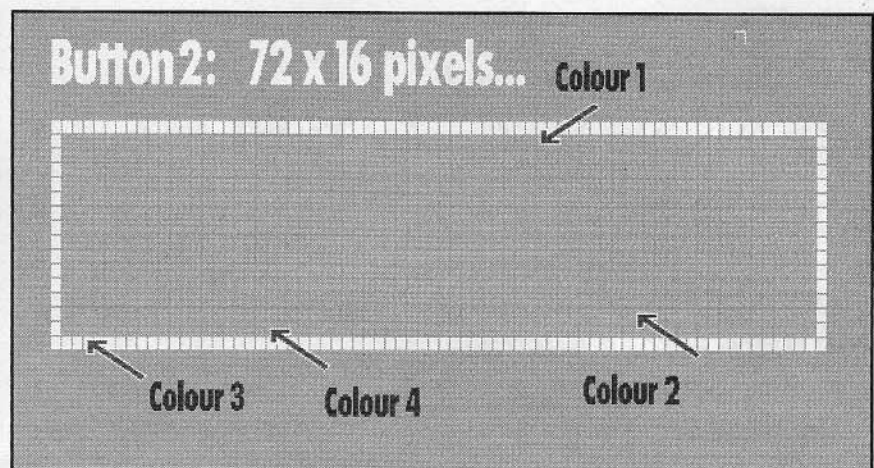


Figure 2

mal when not clicked on), then you need to add the BR command into the second set of parenthesis. This stands for Button Return and is set like this: [BR 0;]

BR 0; means to return to back to the minimum value, set in the BU definitions. Run the program and if all goes well, a button should appear on the screen that is quite happy to be clicked on. AMOS, however is really still stuck in a DO LOOP waiting to do something else at the same time. It is here that we can define the button's function. Let's add some lines between to the do loop that will read our button:

```
Resource bank 16
cls 0
a$="BU 1,160,100,72,16,0,0,1;[UN 0,0,BP 1+;][BR 0;]"
a$=a$+"EXit;"
Dialog open 1,a$
d=dialog run (1)
Do
BUTTON=Dialog(1)
If BUTTON=1 : Bell : Print "Clicked" : End if
Loop
```

Dialog open 1,a\$ tells the interface where to get its program from and define it to channel 1. In this case, it's a\$. d=dialog run (1) starts the program under interrupt. It uses d as a dummy value; it can be any variable.

Inside the DO LOOP, we read the current value that is constantly updated that is coming from the interface program. We use this value to find out what is going on in our program. It is like a window to the interface. If we click on our button, the value in Dialog(1) should read "1" because the button is defined as button 1. The rest is child's play ...

I hope this makes it a lot clearer to those who have been put off trying the interface because of the manual. I was for a long time and now I'm reaping the benefits. I'm working on a program at the moment that will be a valuable tool, and I don't have to worry so much about setting up the buttons and making them work with zones and so forth. All I need to do is worry about the code that's linked to them. And that's the way it should be. Be adventurous. Fill your screen with hundred of active icons, buttons, sliders and whatever you want. Prove to yourself just how easy it is.

AGA! AGA! AGA!

Want some Quick and Dirty AGA stuff? Over the last few weeks, I've been experimenting with some AGA hardware registers and I've found some interesting discoveries. Next month, I will be giving you the ability to open a hi-res 32 colour screen from within AMOS. No cheating, this the real AGA thing. It took a while to achieve, but the secret will all be revealed next month ...

But for now I have some tid bits from my discoveries. Go to direct mode and type the following:

```
DOKE $DFF106,%10000000
A Hires pointer? Like it? Try this one ...
DOKE $DFF106,%11000000
```

A super Hires pointer? I knew you'd be impressed.

To all the guys (and occasional ladies) who have phoned me on the club support line, and friends in the industry, have a great holiday. □

BLITZ 'EM

by Roy Hurley

Hello again to all the Blitz2 Programmers out there across Australia!



The feedback for this column is starting to flow in, and let me say thanks to all of you who took the time to get back to me with your comments, suggestions and source code.

Special thanks must go to Perry Mowbray, who sent me a binary search program. The code was well thought out and written, and Perry tells me it was his first effort with his newly acquired Blitz2. Well done Perry, and keep up the good work!

Over the next few months I hope to put together the Australian Blitz2 PD library, so if you have any work you want to share with your fellow programmers, send it in to: Blitz2 PD, Box 1420 Wollongong 2500.

This month we'll be looking at a few general purpose programming functions, as well as a few source code formatting tips. But first, we'll start the ball rolling with our feature on zones of control.

A common task within all types of programs, is detecting if the mouse pointer has been moved within a zone of control by the user. There are many ways to accomplish this, but for now we'll be looking at an elegant solution involving a 16 colour Hires screen with no less than 33 zones, none of which are laid out in nice convenient square areas.

The Map

Our map is a 16 colour hires map of the world, 640 by 256 pixels. Our application has the four main countries in bright colours, and six shades of grey have been used for the neutral countries.

The Algorithm

How are we going to know which country the user is pointing the mouse

at? Our algorithm is going to use the colours to help tell us, but we only have six colours, and 28 neutral countries ... By using a combination of blocks and colours we can achieve our pixel perfect zone detection. The trick is in the design of the map and the blocks.

We want to minimise the number of blocks that need to be checked, so that our routine will run quickly. However, we can't select areas containing more than six neutral areas.

Using *Deluxe Paint*, with the co-ords on, we write down the top left x and y pixel positions, and the bottom right x and y pixel positions.

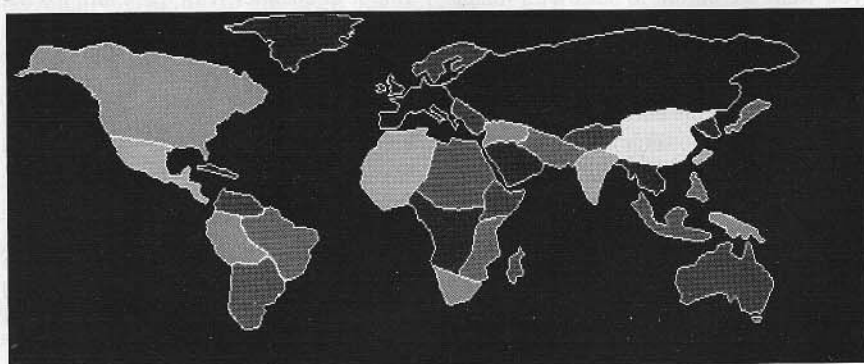
If you take a look at the map with the blocks drawn on (for illustration purposes only) you can see that eight blocks are needed, and it's important when designing your graphics that these areas do not overlap, and that there are no gaps in between them. The main countries don't need to be enclosed in these blocks, since they are filled with their own unique colour. The water areas are all colour 0 and the borders are done in colour 1. By carefully floodfilling our neutral countries with spaced out colours, we get all 28 areas covered into eight blocks.

Our routine need only calculate which block the pointer is in, and look up the colour within that block to determine the zone selected. This method can be used where pixel perfect zone detection is required, and there's no limit to the amount of zones you can cover. The more colours you have, the fewer blocks you'll need, and the quicker your routine will run.

The Code

Our main workhorse is the select country function, which needs no parameters, but Blitz2 still requires the empty curly brackets. Our Function uses the SMouseX and SMouseY commands to determine the Mouse pointer position. The Point () command looks up the colour number under the mouse. The function returns the zone number under the mouse pointer, by comparing the Block it's in and the colour number. Notice how we check for the colour number 0 first? This is a little trick to keep in mind when ordering Cases within a Select ... Case control block. The most common occurrences should be put at the top of the list, as they will be checked first by Blitz2, and this will speed up your code considerably.

```
Function.b SELECTCOUNTRY {}
x.w=SMouseX:y.w=SMouseY
c.b=Point(x,y):b.b=0
Select c ; c is the colour
Case 0
Function Return 0
Case 1
Function Return 0
Case 8
Function Return 3
Case 9
Function Return 4
Case 10
Function Return 2
```




```

Case 11
  Function Return 1
End Select
If x>75 AND x<231 AND y>74 AND y<194
BLOCK 1
Select c
  Case 2
    Function Return 5
  Case 3
    Function Return 8
  Case 4
    Function Return 9
  Case 5
    Function Return 10
  Case 6
    Function Return 7
  Case 7
    Function Return 6
End Select
End If
If x>161 AND x<351 AND y>=0 AND y<44
; BLOCK 2
Select c
  Case 6
    Function Return 12
  Case 7
    Function Return 11
End Select
End If
If x>256 AND x<415 AND y>47 AND y<102
BLOCK 3
Select c
  Case 2
    Function Return 13
  Case 3
    Function Return 15
  Case 4
    Function Return 18
  Case 5
    Function Return 16
  Case 6
    Function Return 14
  Case 7
    Function Return 17
End Select
End If
If x>257 AND x<369 AND y>99 AND y<182
; BLOCK 4
Select c
  Case 2
    Function Return 13
  Case 3
    Function Return 21
  Case 4
    Function Return 20
  Case 5
    Function Return 16
  Case 6
    Function Return 22
  Case 7
    Function Return 19
End Select
End If
If x>454 AND x<576 AND y>83 AND y<194
; BLOCK 5
Select c
  Case 2
    Function Return 26
  Case 3
    Function Return 24
  Case 4
    Function Return 27

```

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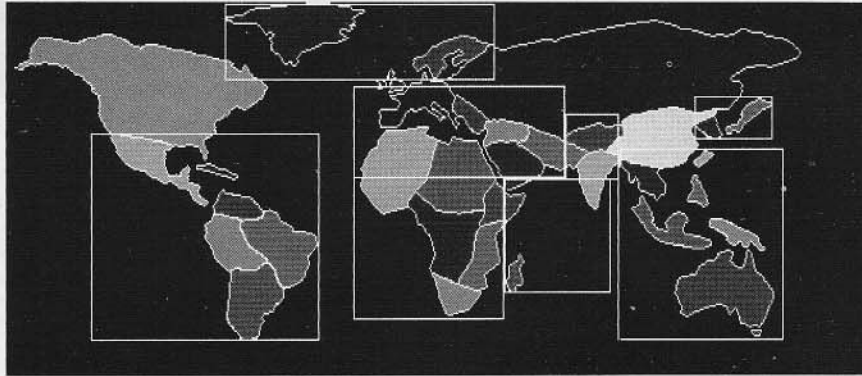
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.....



```

Case 5
  Function Return 25
Case 6
  Function Return 23
Case 7
  Function Return 28
End Select
End If
If x>368 AND x<448 AND y>101 AND y<167
; BLOCK 6
Select c
  Case 2
    Function Return 30
  Case 5
    Function Return 29
  Case 6
    Function Return 22
  Case 7
    Function Return 17
End Select
End If
If x>507 AND x<571 AND y>53 AND y<81
; BLOCK 7
Select c
  Case 4
    Function Return 32
  Case 7
    Function Return 31
End Select
End If
If x>414 AND x<455 AND y>67 AND y<102
; BLOCK 8
Select c
  Case 2
    Function Return 30
  Case 6
    Function Return 33
End Select
End If
Function return 0
End Function

```

Since I can't give you the map graphics to go with the source code, there's not much point in listing the main control loop and other bits of the program. The main thing to note is the method we have used to solve our zone detection needs, and this method can be adapted to a wide range of applications.

To those of you lucky enough to have a modem, I have made this program and

some other Blitz2 stuff available on either Powerhouse BBS (042) 616380/622170 or Squids BBS (042) 261047. I can also be reached here for questions or feedback.

To finish off, here's another little snippet of code to whet your appetite. It's a statement that replaces all the occurrences of a byte within a memory block with another byte value. One very useful purpose for this that springs to mind is replacing all the chr\$(10) newline characters with a chr\$(0), so that the command Peek\$(address) will return strings correctly. Many thanks to Steve Boothman for this 100% Machine code Statement. Thanks Steve!

```

It's called REPLACE (Start,Length,Byte1,Byte2)
; replaces all occurrences of byte1 with byte2
; in the block of memory starting at "start"
; and "length" bytes long.
Statement REPLACE (start,length,byte1,byte2)
  UNLK a4 ; No recursion
  MOVE.l d0,a0 ; Copy address of data block to
  clean to a0
  loop
    CMP.b (a0)+,d2 ; Check byte in
    memory, is it equal to byte1?

```

```

BNE loop1 ; If not, jump over replace
command
MOVE.b d3,-1(a0) ; Else replace it with
byte2 (stored in reg d3)
loop1
SUBQ.l #1,d1 ; one less byte to check
BNE loop ; Back to main loop if any
bytes left
RTS
End Statement

```

Here is a small example of its use in everyday life, coupled with our BLOAD and BSAVE modules. It's easy to put together a useful program in a few minutes. Here we are loading a file into memory, and changing all the chr\$(10) newline characters with the more standard chr\$(0) end of string null the system prefers.

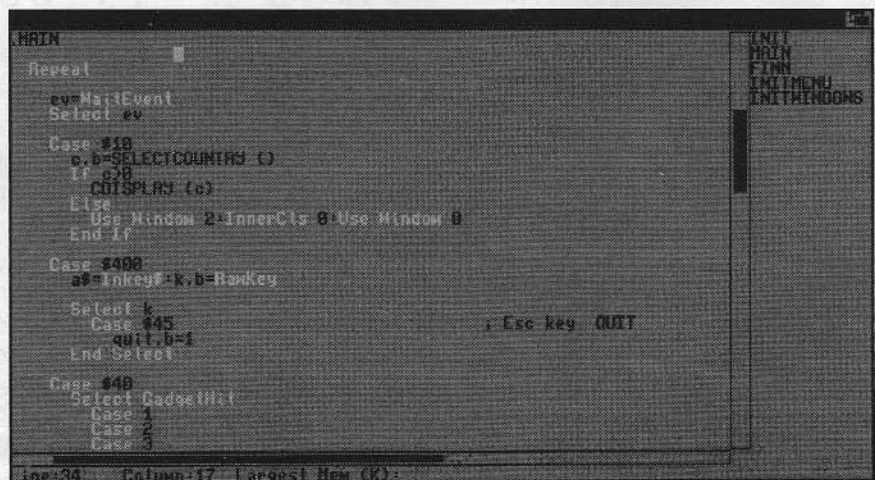
```

DEFTYPE.I
INCDIR "Blitz2:Includes/"
INCLUDE REPLACE.Stat
INCLUDE BSAVE.Fun
INCLUDE BLOAD.Fun
If BLOAD (Filename$)
  REPLACE (FADDRESS,FLENGTH,10,0)
  result=BSAVE
(Filename$,FADDRESS,FLENGTH)
FreeMem_ FADDRESS,FLENGTH
Else
  NPrint "Couldn't BLOAD {} ",Filename$
  MouseWait
End If
End

```

Happy coding!

There will be more useful procedures and code next month. I'm always happy to receive your feedback, so write me a letter, reach me on the BBS, or send me your PD contributions. Roy Hurley, PO Box 1420, Wollongong 2500 NSW.



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For Beginners Andy's Attic

The Great Debate!

This issue we examine the constant arguments people seem to have regarding which computer platform is better than the other and give you a chance to have your say on the matter. As a special bonus, you could win a few disks for your effort to boot.

A quick follow up on *Spot* pointing software reviewed in the October issue of ACAR and a reply to a reader's letter regarding printing problems. On with the show ...

Ebony and Ivory

One of the huge benefits of owning a modem is being able to log onto a BBS and participate in public conversations with other like-minded people from all over the world. We do this via networked message areas which bulletin boards carry called echoes.

A personal favourite of mine is an echo called Aust Amiga. As its name suggests, it only travels Australia wide, but it's full of regular participants who are dead keen on their Amiga and who enjoy talking about their machine, often exchanging various bits of juicy information and tips.

All that's great and dandy, but every now and then, the inevitable happens and someone dares write something positive about <shock, horror> an IBM clone machine. The verbal wars which result when this happens have to be seen to be believed and are highly amusing to those that have sense enough to just sit back quietly and

enjoy the fighting. At the same time though, such wars are disruptive to the purpose of the medium, which was naturally designed to discuss the advantages of owning an Amiga.

What's this got to do with Andy's Attic? Bear with me for just a little bit longer and you'll find out. Many people, myself included, own both platforms. I have an IBM clone and an Amiga 500 and happen to enjoy them both. My favourite is the Amiga, so it gets used for most of my computing needs, but the IBM clone sits here, chugging away 24 hours a day running my bulletin board.

The point I'm making is that BOTH can be, and ARE useful. In my opinion, for someone to say something like an IBM clone makes a good book-end is crazy. Am I wrong?

My two machines sit here on the same computer table at Andy's Attic, mere centimetres separating them, and not once have I heard them arguing with one another that one is better than the other. I'm not surprised, because they can't talk on their own, but even if they could, I'd bet that they would probably know better.

I'm going to stick my neck out here and say that this often asked question of which is better, Amiga or IBM, is a question which can not be conclusively answered. Why? Because the Amiga is not (in my own opinion) "overly" better than the IBM clones and nor are the IBM clones "overly" better than the Amiga. My invitation (challenge?) to you is to prove me wrong.

Amiga v IBM

I invite anyone interested to write in and tell us why they think their Amiga is better than an IBM clone and vice versa. As I said earlier, many people own both so there should be quite a few of you in a position to be able to offer informed arguments both ways.

I'll collate your responses and devote a whole column to what I consider to be the best replies from both sides of the coin. Further to that, I'll select an overall best letter and send the writer five disks chocka block full of randomly selected, latest PD/Shareware archived software that's on my BBS harddrive at the time, FREE as a prize for writing the best letter. You can't lose so what are you waiting for? Start hitting that keyboard and send your views to: Andy's Attic! PO Box 1335, Hoppers Crossing Vic 3029.

Spot Update

Modem owning users that decided to try *Spot* pointing software after our review in the October issue of ACAR will be pleased to learn that it's since been updated. Containing various bug fixes and new features, the current version at time of writing is 1.2A. Note that the latest version of *Spot* may always be file requested from Andy's Attic with the magic file name of *Spot*. Our netmail address for crash mail and file requests is 3:633/106. Anyone may file request.

More good news is that an Australian Registration Site has now been established for *Spot* evaluators. You can now register your copy of *Spot* by sending \$50.00 Australian to: Richard Galewski, PO Box 237, Reservoir Vic 3073 or netmail him for more info at 3:633/106.3 @fidonet. Richard gives a top service to *Spot* users, bringing in the latest versions direct from Belgium as they become available and also by bringing in the *Spot* support echo direct from Belgium, giving access to all for nix and paying for the resulting hefty phone bills all on his own coin.

Readers' letters

Mr Rob Robinson of Eildon in NSW writes in with printer problems ... Dear Andrew, I am what is called a Golden Oldie, being in my mid 70s, and have been a Commodore fanatic since 1983. I've read ACAR since it was first printed and follow your interesting column every month.

After reading your articles on the V2 Roms in April, May and June of this year, I found myself so interested that I went out and purchased a V2.1 Rom Enhancement kit. I had it installed with a DNA Tech's switchable board in my 1meg A500. I'm very impressed with the new Rom system which works fine for me except for one item which brings me to the reason for this letter.

I use a STAR 24/20 with an EpsonQ driver for my word processing and this works fine when booted on the V2.1. I have transferred the EpsonQ driver from the V2.1 Extra/Storage to

the V2.1 Devs/Printers and followed the instructions in Printers Chapter 9 of the Workbench Users Guide manual using the default settings (and others) but try as I might, I simply can't get a printout when I enter the Shell and type TYPE or [LIST S:Startup-Sequence to PRT:], all I get is a requester asking me to PUT PRINTER ON LINE and this will come up four times before I can exit Shell and Workbench.

If I switch off and re-boot with the V1.3 switched in, I can get the same printout from 1.3 Shell along with many others. I have two printer leads, tried them both and also tried the CBM(MPS)1000, EpsonX, Epson (Old)X and Generic drivers, all with the same result. I know it's not the printer but the V2.1 Workbench does not seem able to recognize that the Star24/20 is on-line!

I wonder if you have any clues on this matter and the time to write. Can you HELP me before I tear what little

hair I have left out of my head?

AA: The only way to find the cause of a problem like this one is brute trial and error. Start at the basics and eliminate them one item at a time. The fact that your printer works fine with V1.3 of Workbench is encouraging and proves that there is nothing wrong with the printer itself. It's unlikely the cables have anything to do with the problem either as you would have similar problems with V1.3 of WB.

I suggest going back and re-checking your preferences settings. Make sure you have selected the correct driver. Have you tried clicking on InitPrinter before attempting to print while in a shell? Tried using Generic? Got the correct Printer Port selected? If all experimentation fails, then you may need to resort to taking the printer to your nearest Commodore dealer and ask them for some help.

That's about it for this issue of Andy's Attic so till the next time, keep hammering those keyboards. □

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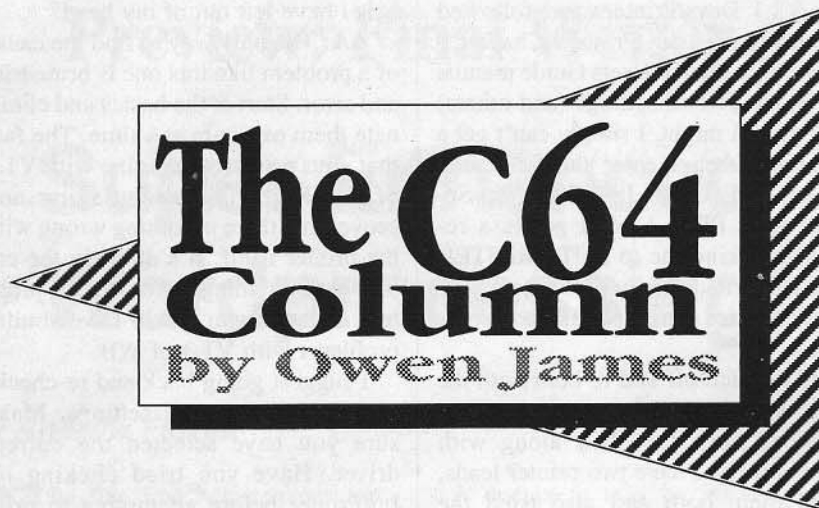
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Bumper Tips Edition

New address

Brunswick Publications, long time supporters of the C64 through their extensive public domain library, has moved to a new location. Orders and enquiries should be sent to Brunswick Publications, PO Box 745, Campsie NSW 2194. Their telephone number remains unchanged as (02) 759 7343.

More power!

There seems to be an unwritten rule that no matter how fast or powerful your computer equipment, there will be some unusual or obscure technique for squeezing more out of it. Some are complicated hardware patches that require better than average soldering skills to install, while others are little more than a few well placed POKES.

In this issue, we're going to take a guided tour of some of the more simple but useful software options for squeezing just that little bit more out of your 1541 disk drive. No matter how fast your disk drive, eventually you'll find it too slow. Although no replacement for Warp Speed or similar speed-enhancing cartridges, the following will improve the speed of Scratch, Validate and Rename functions:

```
OPEN 15, 8, 15: PRINT#15, "M-W" CHR$(7)
CHR$(28) CHR$(1) CHR$(15)
```

When files are saved to disk they become one of four file-types:

USR (User), REL (Relative), SEQ (Sequential), or PRG (Program).

BASIC programs are saved in the regular PRG format. However, this isn't a restriction because you can save a file as any type.

Although providing no great advantage, it can serve as a simple form of file protection, since a program that is saved in any format other than PRG can't be loaded in the normal way. Aside from this, if you save your BASIC program as a sequential file then it can easily be loaded into your favourite word processor to become part of a text document. To save a file as a sequential file, type:

```
SAVE "Filename,S",8
```

Notice the comma S extension at the end of the filename. This S tells DOS that the file should be saved as a sequential file. The S can be replaced with other letters, depending upon the type of format you wish to save it as. Loading files require a similar extension:

```
LOAD "Filename,S",8
```

Remember to replace the S with whatever letter you saved it as.

File Name Recover

Here's an easy way to recover the name of the last file you loaded. Simply type SYS 62913. Unlike the regular commands for loading the directory, this one isn't destructive.

Save & Replace

A great source of frustration for many users is the Save and Replace function. This function is designed to replace an existing disk file with an updated version, but unfortunately it doesn't always work as intended. The problems generally arise when a disk is low on space. Save and Replace works by saving the newer version of the file first, before deleting the original. Obviously if available space is low, it will have problems and you may end up losing both the old and newer versions. My advice is if you must use this command, always ensure you have enough space on disk to save your program a second time. Aside from this, many users claim an insertion of a zero directly after the @ sign will improve stability (SAVE "@0: Filename", 8).

Disk Detect

A useful feature of the Amiga is their ability to detect when a disk is inserted or removed from the drive. What a lot of 64 users don't realize is that this can be achieved on their 1541 or compatible with a small software subroutine. The subroutine listed below will wait until a disk is either inserted or removed from the drive before continuing.

```
10 OPEN 15,8,15
20 PRINT#15, "MR": CHR$(30):CHR$(0)
30 GET#15, A$
40 IF ASC (A$+CHR$(0)) THEN 20
50 CLOSE 15
```

The above routine would need to be called twice - once to sense the disk's removal, and again to sense the presence of the new disk. With this routine you may never have see a "Hit key to Continue" prompt again. If only GEOS made use of it ...

Close All!

Working with a lot of files from within a program can be very confusing and you may easily find yourself in a tangled web of files and channels. If you wish to close all open files then try SYS 65511. This system call can even be used from within a program (use it to ensure all files and channels are closed after the user has selecting the quit option from your menu).

Write Protect?

Checking the status of the write-protect tab of a disk from within a program can greatly reduce the chance of your program crashing during disk operations. The following short routine can be incorporated into your own programs to check if a disk may be written to before trying to access it:

```
10 OPEN 15,8,15:PRINT# 15,"M-
R";CHR$(30);CHR$(0):GET# 15,A$:CLOSE 15
20 IF ASC(A$+CHR$(1))=1 THEN PRINT" DISK IS
PROTECTED": END
30 PRINT" DISK IS NOT WRITE PROTECTED"
```

UnNEW

If you find that you've typed NEW before you should have, or want to get back your program after a reset then type:

```
POKE 2050,8 SYS 42291
```

Program Protect

Keeping your BASIC program from prying eyes can be a real problem. Here's a tip to make BASIC lines disappear from the listing:

1. At the end of any program line, place a colon, a REM, and two quotation marks ("").
2. Cursor back one position so that the cursor is flashing over the second quote mark.
3. Press and hold the SHIFT key while tapping the DELETE key once for every character in the line that you want to disappear
4. Now release the SHIFT key and type the DELETE key until you reach the newly positioned quote mark.
5. Hit RETURN

If you now type LIST you should find that part or all of that line will have disappeared.

Round numbers

If you've done much in the way of BASIC programming you have probably found the need to round numbers off to a particular number of decimal places. The following formula will round off any number to any number of decimal places. At the start of the program, you'll need a line like this:

```
10 DEF FN RD(X)=INT(X*10^DP+0.5)/10^DP
```

To round off a number, set the variable DP to the number of decimal places required. It uses the define function command. As an example, to round off the square root of 8 to 3 decimal places from within a program you would need a line like this:

```
80 DP=3: PRINT FN RD(SQR(8))CIA
```

Squared

Problems with drives or keyboards can be a common occurrence, but a solution may be easier than you think.

Unplug the computer and carefully unscrew the base of the 64. Have a look at the array of chips on the main board. If you look carefully you should find two chips placed next to each other that are marked with CIA or 6526. These CIA (Complex Interface Adapter) chips are the possible cause of the problem.

They are, in fact, identical chips - only that one controls the keyboard, and the other controls the user port and disk drive functions. If these chips are swapped over then often the problem will be rectified. The CIAs might be either plugged into a socket, in which case the job of changing them would be greatly simplified, or soldered on, making your life just that much more challenging.

That just about wraps up this installment of The C64 Column. As usual, I'd love to hear from you. Send your questions, suggestions, news or anything else to me at The C64 Column, PO Box 288, Gladesville NSW 2111. See you next month. ☐

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Phil Campbell's Amiga Entertainment

Happy New Year

Welcome to yet another year of Entertainment here in the ACAR Entertainment section. With the CD32 console selling like hot cakes, the future of Amiga entertainment seems secure. As you'll see in the next few pages, this month marks the start of some heavy-duty CD coverage - if there's a development on the CD32 Entertainment front, you'll read about it here. Not only that, over the next few months we'll be reviewing a bunch of hot new Amiga titles too - see the details below. Don't forget, we're still the best dudes to write to if you're looking for an answer to a problem or a hint for a game. And if you're a full-on adventurer, check out Adventurers Realm, the biggest and best information exchange in Australia. In this issue, we're featuring our annual update of the Realm's clever contacts - experts on almost every game you can think of who are happy to dish out free advice! What a deal! What a mag!

New hints from ACAR

Good news, folks! We're delighted to announce a new addition to the ACAR Hints Disk stable. ACAR Hints Disk Number 3 is packed full of hints, cheats, level codes and even full solutions for games released since Disk 2. There are 160 Action Replay Cheats,

codes for all 1000 levels of *Populous 2*, hints for games like *Lemmings 2*, *Chaos Engine*, *Zool*, *Flashback*, and *Desert Strike* - to name but a few - as well as all the hints and tips printed in the ACAR Entertainment section over the last two years. 100 Adventure games have been covered, many with complete solutions. So if you're looking for help with *Zork 1, 2 or 3*, with *Monkey Island 2*, with *Larry 2 and 5*, or with *Police Quest 2*, *Kings Quest 2* or *Space Quest 4*, here's where you look! To order Hints Disk 3 - or Disk 1 or 2 - send a blank disk, a stamped, self addressed envelope, and a cheque or postal order for \$5.00 to Phil Campbell, ACAR Hints Disk Offer, PO Box 23, Maclean NSW 2463.

More PD games from ACAR too!

More good news for disk collectors! We're also happy to announce

the addition of a new PD Game Disk to our ACAR Series. Graeme Beaven's ACAR PD Games Disk 2 is now available. Graeme has searched high and low for top quality PD games for our readers - see a full review of the disk in this issue. Order details are as per the PD disks - see the item above.

New releases from Hot Point

Things are still running hot at Hot Point Software, Australia's most committed Amiga software stockists. Now distributing for the UK's ICE - that's International Computer Entertainment - as well as Psygnosis and a bunch of other top class software houses, Hot Point's Kevin Davies reports brisk business. ICE are responsible for quality Amiga titles like *Deep Core*, a slick arcade shoot-em-up, and the corny *Gnome Alone*, a corny, cartoonish scrolling action adventure. A number of A1200 specific titles have been released recently, like *Alien Breed 2* and *Oscar*, and Kevin suggests that 15 CD32 titles should be on the shelves by the time you read this.

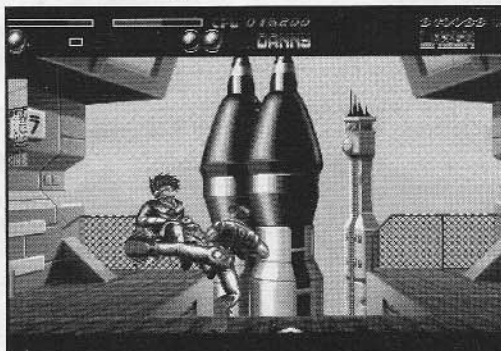
Digisoft Development Deal

Australia's very own Digisoft - developers of the A1200 and CD32 title *Overkill*, are currently negotiating an Australian and international distribution agreement with an Aussie software company. Currently, Digisoft products are distributed by Mindscape UK!

Next month ...

Stay tuned next month for our long awaited review of *Soccer Kid* - one of the most popular platformers in the UK, and certainly doing brisk business with the kids in my house! You'll also get the low down on *Body Blows Galactica*, a game that you could only describe as a real hit! Now why didn't someone think of a deep space beat-em-up before?

Body Blows Galactica



ENTERTAINMENT HINTS & TIPS

Need help? Check out this month's selection of handy hints and tips. If you can't find the help you need, drop us a line and we'll advertise your problem. Better still, if you've found out something sneaky about your favourite game, let us know. Write to ACAR Hints, PO Box 23, Maclean NSW 2463.

Castle Master

During the game, press SHIFT, L and then tap the right mouse button around 20 times until you hear a sound. Some boxes will have appeared ahead of you. Shoot either of them for infinite lives, all ten keys and the end sequence.

Horror Zombies From The Crypt

Type CHEATMODE during play and use F10 to skip levels.

Monty Pythons Flying Circus

Type SEMPRINI as your name on the high score table to restart on any level previously reached by using the cursor keys.

Shadow Warriors

Press CTRL, ESCAPE, F2, 5, C, J, HELP, right ALT, left bracket and ENTER on the keypad. The bottom of the title screen should flash purple. Now HELP skips levels, 1 and 2 will give the respective players more energy and Q will make them invincible.

Viz

On the character selection screen type WHAT A GREAT LOAD OF

BULLOCKS. Now the keys 1-5 will skip to that level.

Agony

Hit any one of the following keys during play to activate these cheat modes: F1 - Puts a sword underneath owl F2 - Puts a sword above owl F3 - Increase size of bullets Press F3 three times to gain an extra life. This cheat can be repeated often so watch out you don't run out of lives.

Alien Breed

To activate the following cheats, log onto the terminal on deck two (one screen south of where you start) and simply type in (including spaces) one of the following:

PUFFNUTS MODE - makes the aliens quite slow

IS IT TRUE THAT THE ALIENS SUPPORT MAN UTD - makes aliens very weak

PITBULLS ON THE LOOSE - makes the aliens dangerous as pitbulls BEN JOHNSON TRAINED THESE ALIENS - makes the aliens a bit faster

THE IRAQIS MADE THE WEAPONS - gives you abysmal weapons SALMAN RUSHIE PLAYS ALIEN BREED - all the aliens flee in terror

BEWARE ALIENS SPADGE HAS DROPPED ONE

Regular contributor and hint-disk guru Graeme Beaven has contributed the following up-to-date hints. Thanks Graeme!

Chaos Engine

Enter the following Passwords to receive extra money, lives and weapons.

TTTTTTTTTTTTT Start at World 1
VVVVVVVVVVVVVV Start at World 1
XXXXXXXXXXXXXXX Start at World 1
YYYYYYYYYYYYYYY Start at World 1
P#S7Q6MJZCHJ Start at World 2
VL7V76F7TWRG Start at World 3
TYJRRWRDYRV8 Start at World 4

Desert Strike

Passwords

Level 1: None Needed.
Level 2: LQJMQRX.
Level 3: JLJOLRH.
Level 4: JTBOOMJ.
Win Screen: KIKPPHN.

Goblins

Level Codes:

1 NONE	12 FTQKQVLE
2 VQVQFDE	13 DCPLQMH
3 ICIGCAA	14 EWDGPNL
4 ECPQPC	15 TCNGTOU
5 FTWKFFEN	16 TCVQRPM
6 HQWFTFW	17 IQDNKQO
7 DWNDGBW	18 KKKPURE
8 JCJCJHM	19 NGOGKSP
9 ICVGCGT	20 NNGWTTT
10 LQPCUJV	21 LGWFGUS
11 HNWVGKB	22 TQNGFVC

Leander

Level Codes

LEVEL 1 : Not Needed

LEVEL 2 : ZXSP

LEVEL 3 : LVFT

Use the joystick to select the password LVFT and then move it left or right to choose any of the three levels. Once the level has been selected, change the password to LTUS. You will now have unlimited lives plus weapon select using F1 to F5.

Lemmings 2 - The Tribes

When you first come to the Main Menu Screen, click on the "Load" button and then click on "Cancel" to get straight back to the Main Menu once more. Now click the mouse button once on each of the four corners of the screen until you hear a Lemming call out "Let's Go". You will now be able to play on every level in the game at any time.

Road Rash

Enter the following Password to start on level 1 with \$25,000. You will now be able to buy any bike you want.

10111 - 02DJ1 - 10ITV - 103FC

Please note, says Graeme, that the Road Rash passwords are in four sections. You must type in each of the above numbers in the appropriate box for the password to work.

Entertainment Letters

Got something entertaining to say? Or maybe a question about Amiga gaming? Maybe you want to complain? Just drop us a line at the Entertainment Mailbox, PO Box 23 Maclean NSW 2463. And, as a little reward for those of you who bother to read the bumpf like this at the top of the letters section, next month's best letter writer will receive a free copy of *Mean Arenas*, courtesy of Hot Point software.

Ports of Call Question

Dear Phil, Would you please tell me a way to get a large sum of money in *Ports of Call*. I think ACAR is great and the Entertainment & Adventure Sections are excellent. Keep up the good work!

Dale Scott
Innaloo, WA

Ed: The best way to get lots of money in *Ports of Call* is to read through your ACAR back issues - I'm sure there's an answer in there somewhere, but I can't put a finger on it at the moment. Let's hope someone with a good memory lets us know. I've got a feeling it's got something to do with picking up stranded voyagers.

CD Listings

Dear Phil, I have a NEC 74 CD-ROM Reader on a Amiga 2000. If you have a listing of CD vendors, could you please send me a copy. I have purchased material from Don Quixote and a few PC format (GIF) CD disks and I thought it was possible there were other outlets.

B Benyon
Woodridge, QLD

Ed: Good news - our new CD32 column will keep you up to date on the latest happenings in the world of Commodore CD. Don Quixote are your best bet for Amiga CDs, as they've always been Australia's best CDTV supporters. As for listings of PC disks, the field is huge, and growing every day. They're good for text applications, and fine for graphics and some fonts if you've got the right software.

Want Twin World? You've got it

Dear Phil, In answer to Peter Ramshaw wanting a copy of *Twin World* (ACAR Nov), I have an original copy still in box with manual. Price \$20.00? Also I have if anyone is interested the following games:

Ultima 6 + Manual & Hints
Shadow Sorcerer + Manual
Limited Edition D/D Clue book with Curse Azure Bonds
Death Knights of Krynn with Clue Book

Kings Quest V + Manual + Clue book

All are originals and all have their boxes.

R Morgan
20 Riowena Place
Lithgow NSW, 2790

Ed: Thanks for responding to Peter's plea! Hopefully, he'll be in touch - if you're not swamped with other readers first.

A Character Reference for James

Dear Phil, I am writing to all those people who are thinking about writing to James Abram in England, and are still pondering whether to trust this man who lives on the other side of the world. Stop pondering and DO IT!

I answered James' request in the January issue of this year and have not regretted it. James is a good friend (by post) and a hard-working Amiga user. I have received numerous disks from him for sending him issues of

ACAR, he even gave me *Zool*.

In closing I would like to say James can be trusted with your money, in fact I trust him more than a bank, and anybody who wants to take up his offer but are holding back their money then just send it now.

Jeremy Taylor
Bunbury, WA

Ed: Okay, Jeremy, I know you're really James' mum trying to fool us. But we'll take your word for it this time! By the way, thanks for the good work James. Pass your copies of ACAR around to a few other Poms - they need to see what a decent computer mag looks like!

Another CD question

Dear Phil, I am concerned about the future of the CD-ROM drive. I have many questions to ask:

1) Will the CD32 take over and make the CDTV old news? Or will the CD32 reflect on the CDTV and make more programs available for us.

2) Are there any Sierra adventure games coming soon to CDTV?

3) What has happened to *Monkey Islands*, *Microcosm*, *CDTV Football* and *Dracula* for the CDTV - I haven't seen them around anywhere, can I get them through mail order?

4) Are the rumours true about an adaptor for the CDTV and the CD32 to make them both compatible?

Thanks a lot and keep up the good work.

Paul Spiroski
Balga, WA

Ed: Sadly, Paul, it seems like the days of the CDTV are now numbered. Much as the Amiga 500 has been superseded by the AGA graphics modes of the A1200, the CD32 outshines the CDTV, and new CD32 specific discs won't run on your CDTV. Unless someone comes up with an AGA adaptor for the CDTV, you'll be stuck with your existing CD collection. Don't expect *Monkey Islands*, *Microcosm* or *CDTV Football* for CDTV - some of them are already on the way for CD32. Check out our release list in this month's new CD32 column.

MICHAEL SPITERI'S

Adventurer's Realm

Happy New Year to Realmers across the land! Welcome to the first Adventurer's Realm for 1994. This is the part of the magazine where answers lie to many problems. You can write to one of our many Clever Contacts (a full list printed this month) or to Kerrie for one of her many free hint sheets. If all of those options fail, drop a line to me here at the caves of the Realm.

If I can't find help for you among my huge database of hints and tips then I'll print your problem here for all to see and hopefully a solution will be forthcoming.

Of course, you are more than welcome to send in your hints and tips, your views and news, your rumours and gossip, your complaints and chat-

ter, in fact if it's on the topic of adventure and roleplaying games then we want to hear about it!

The address to write to for adventure hints, tips, problems, natter, chatter, rumours, complaints, etc. is:

Adventurers Realm, 12 Bridle Place, Pakenham, Vic 3810.

Kamikaze Andy resides deep in his Dungeon and he is our resident roleplaying game expert (he is also pretty cluey when it comes to games in general). Drop Andy a line at:

Realms Dungeon, PO Box 1083, Canning Vale, WA 6155.

Always enclose a stamped addressed envelope when writing to any of the addresses published in this article.

Free Hint Sheets

Kerrie, the Lady of the Realm, spent Christmas under a pile of mail. The fact that I hid her present under last month's mail could explain why she got lost and didn't reappear until Boxing Day. Anyhow, she is still just as quick when it comes to processing your hint sheets requests and is eager to read your letters.

All our hint sheets are absolutely free and you can choose up to four from the list below as long as you send your request with a stamped addressed envelope to: Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810.

Hint sheets available are: *Mortville Manor/Maupiti Island, Monkey Island I, II, Space Quest III, IV, Wonderland, Leisure Suit Larry 3, Champions of Krynn, Kings Quest V, Pool of Radiance, Zak McKracken, Zork I, 2, 3, Bards Tale I, 2, 3, Hitchhikers' Guide to the Galaxy, Guild of Thieves, Jinxter, The Pawn, Corruption, Faery Tale, Indiana Jones and the Fate of Atlantis, Loom, Space Quest II*, and the brand new 1994 Clever Contacts Listing.

Realm's Super Hint Disks

Orders for the Second Hint Disk are coming in thick and fast, and for good reason of course as it is the best dressed and most easy to use hint disk ever. It features a very easy to use interface that allows you to display hints and maps at a click of a button. It also has a catchy background tune. Absolutely packed to the last remaining sector with hints and maps, it is an absolute bargain at just \$7 (including

p&p) or \$5 if you supply the disk and stamped addressed envelope.

Not as pretty but just as useful is the first hint disk which is also packed to the brim with hints. The two disks combined feature help for around 200 games. Not bad eh? To order either disk send a cheque to Michael Spiteri for the required amount to Realm's Hint Disk, 12 Bridle Place, Pakenham, Vic 3810.

Realm's Super Hint Books

Take your pick or pick both of our wonderful hint packed hint books. Volume 1 contains hints and tips to over 40 games, and Volume 2 contains hints and tips to over 25 adventure and RPG games as well as pages upon pages of mapping sheets.

Volume 1 is only \$9 and Volume 2 is only \$10. To order either book, drop a line to Darrien Perry at 21 Darley Road, Randwick, or give her a bell on (02) 398 5111.

Clever Contacts Updated Listing

The Clever Contact service has been running for over three years and is now a very reliable source for hints and tips for specific games. All the contacts are volunteers who donate their time (and sometimes money) to helping out very troubled adventurers, and also picking up pen-pals along the way. It's a great way to get in touch with fellow adventurers and has been a huge success.

As usual, January is the month where I list all of our Clever Contacts, and boy has the list grown over the past year, by 25 percent, in fact. There are over 90 Clever Contacts scattered across Australia. With our new additions from the Northern Territory and Tasmania, we are well and truly a national service. Hopefully this year we can add New Zealand to the list and become international! So, if there are any Kiwi contacts out there, we need your services.

Remember, you can write to Kerrie in the Free Hint Sheet Department for an update of the Clever Contacts listing as seen in these pages.

If you use the services of a Clever Contact, be polite and keep in mind the contacts are helping you out of the goodness of their hearts. Make sure you enclose a stamped addressed envelope and sufficient funds for additional printing and photocopy costs.

Congratulations and many big thanks to all our Clever Contacts for doing a fantastic job and making us proud here at Realm Headquarters.

New South Wales

Simon Vaughan of 64 Lakeview Parade, Primbee, NSW 2052 can help out in the following games: *Yukon*, *On the Run*, *Shifting Sands*, *Hitchhikers' Guide*, *Neuromancer*, *Curse of the Azure Bonds*, *Maniac Mansion*, and *Zak McKracken*. Please enclose 50c to cover photocopy costs if you require complete solutions.

Daniel Cannon, 13 Tamworth St, Dubbo, NSW 2830 can help out in *Monkey Island 1, 2*, *Zool*, *Dream Zone*, *Rocket Ranger*, *Colorado*, *Garfield*, *Hook* and *Zak McKracken*.

Peter Colelough of 79 Scholey Street, Mayfield, NSW 2304 can help in *Black Crypt*, *Death Knights of Krynn*, *Quest for Glory I*, *Countdown to Doomsday*, *Kings Quest II*, *Space Quest II* and *Police Quest II*.

Ben Ashby of 11 Miles Close, Forster, NSW 2423 can help in a huge range of RPG and adventure games - too many to fit on these pages!

David Weston, PO Box 64, Henty NSW 2658, can help in the following games: *Bards Tale III* (and map for Dargoth's Tower), *Ultima V*, *Last Ninja*, *Labyrinth*, pokes & tips for a few arcade games as well as general hints and tips for games in general.

Aaron Anderson of 107 Bant Street, Bathurst 2795, can offer help in the following games: *Monkey Island 1*, *Space Quest 2*, *Kings Quest 2*, *Search for the King*, *Pool of Radiance*, *Heroes Quest* (Quest for Glory) 1 + map, *Larry 1*, *Loom*, *Eye of the Beholder* maps, and *Operation Stealth*.

Tom Le, 34 Dudley Street, Mt Druitt 2770, has compiled a disk packed with solutions for many games, including *Larry 1, 2, 3*, *Kings Quest 1, 2*, *Police Quest 1, 2*, 3 plus others. Send a disk and \$2 and you'll promptly receive the hint disk.

Tony Finn of 214 Fernleigh Road, Wagga Wagga, NSW 2658 can offer help in the following games: *Monkey Island 2*, *Eye of the Beholder 1 & 2*, *Dungeon Master*, *Hitchhikers' Guide*, *Borrowed Time*, *Uninvited*, *It Came From the Desert 1*, *Bards Tale 1, 2, 3*, *Space Quest 1, 2, 3*, *Kings Quest 1, 2, 3, 4*, *Police Quest 1, 2*, *Ultima 4*, *Codename Iceman* plus many other Sierra games, *Deja Vu 1*, *Deja Vu 2*, *Conquests of Camelot*, *Black Crypt*, *Lancelot*, *Dragons Lair 1 & 2*, *Loom*, *Maniac Mansion*, *Arthur (Quest for Excalibur)*, *Operation Stealth*, *Champions of Krynn*, *Lure of the Temptress*, *Colonels Bequest* and *Heroes Quest 2*.

Noel McAskill, 9-18 Vega Street, Revesby, NSW 2212, can offer help in *Mortville Manor* and *Maupiti Island*.

Darren Chapman of 1a Weardon Road, Belrose NSW 2085, can help out in *Space Quest 1 & 2*, *Monkey Island 1*, *Pirates*, *Civilization*, *Shadow of the Beast III*, *Railroad Tycoon* and *A-Train*.

Doug Smith of 19 Hibiscus Avenue, Brooms Head, NSW 2463 can offer help in most Lucasfilm, Delphine and Sierra Games, and also some help with *Castle of Dr. Brain* and *Fool's Errand*. Doug has a saved game for *Fool's Errand* which has

all solutions up to and including the Sun Map. Anyone sending a disk and postage is welcome to this.

Tony Finn of 214 Fernleigh Road, Wagga Wagga, NSW 2650 will offer his services as a Clever Contact for *Eye of the Beholder 1 & 2* plus over fifty other titles.

Mark Harris from Bondi Junction can be contacted on (02) 369 4920 between 8am and 11am during the day and between 7.30pm and 10.30pm during the evening. No calls on weekends, please. Mark can offer help in a huge range of adventure and roleplaying games.

Juris Graney of 41 Cameron St, Maclean 2463. Help offered: Various games for Amiga & C64.

Robert McGeche of Exmouth Road, Dapto 2530. Help offered: Sierra games, *Maniac Mansion*, *Zak*, *Future Wars*, *Gold Rush*, *Operation Stealth*, *Colonels Bequest*.

Peter Chirn of 37 Austral Avenue, Westmead, 2145 (email pec@newt.phys.unsw.edu.au). Help offered: *Ultima IV*, *V*, *Eye of the Beholder*, *The Hobbit*, *Shadow of the Beast I & II*, *Zak McKracken*, *Larry 1*, *Time Tunnel*, *Prince of Persia*, *Indy (Last Crusade)*, *Phantasie III* and some help in *Pools of Darkness*.

Nathan Allan of 11 Maple Avenue, Pennington Hills, 2120. Help offered: *Larry 1 & 2*, *Space Quest 1 & 2*, *Police Quest 1*, *Faery Tale*.

Andrew Bell of 67 Byamee St, Dapto, 2530. Help offered: Sierra Games, *Hillsfar*, *Bards Tale I*, *Millennium 2.2*, *Warhead*, *Battletech*, *Iron Lord*, *Champions of Krynn*, *Codename Iceman*, *Heroes Quest*.

Shayne Cooper of 43 Raye Street, Tolland, Wagga Wagga, 2650. Help offered: Hints and maps for *Alternate Reality: The Dungeon*.

Gus Wrethman of 31 Anderson Street, Mortdale, NSW 2223. Help offered: *Bards Tale 1, 2, 3*, *Dungeon Master*, *Chaos Strikes Back*, *Might and Magic I, II*, *Eye of the Beholder*, *Dragon Wars*, *Alternate Reality* (city and dungeon), *Phantasie III*, *Deja Vu*, *Pirates*, *Tass Times*, *Lemmings* and parts of *Legend of Faerghail*.

Peter Georges of 34 Arundal Park Drive, St Clair 2759. Help offered: Has a collection of hints and tips printed in almost every magazine over the last five years (Amiga, C64, ST).

Matthew Sant of 3 Baringa St, Blaxland 2774. Help offered: A huge list of adventure, arcade and role playing games.

Suzanne Parkes of 1 Ida Place, Blacktown, 2148. Help offered: *Asylum*, *Adventureland*, *Find Daryl*, *Giants Gold*, *Hitchhikers' Guide*, *Irish Adventure*, *Jinxter*, *King Solomons Mines*, *Lucifers Realm*,

Magicians Ball, Pilgrim, Perseus & Andromeda, Pirate Adventure, Subunk, Secret Mission, Pawn, Boggit, Voodoo Castle, Lost City, Winnie the Pooh, Zork 1, 2, 3.

Andrew Hansen of 4 Stevens Street, Pennant Hills, 2120. Help offered: *Bards series, Ultima I, III, IV, Zork 1 & 2.*

Anthony Stubbs of 66 Hoskins Street, Nyngan 2825. Help offered: *Captive, Pools of Radiance, Azure Bonds, Silver Blades, Champions of Krynn, Kings Quest, Bloodwyche, Dracula Pt 3, Curse of Sherwood, Wolfman Pt 1, Labyrinth, Bards Tale III, Hitchhikers' Guide.*

S. Rawlings of 6 Balder Street, Doonside, 2767. Help offered: *Bastow Manor, Drak, Curse of the Mad Mummy.*

Dale Priem of PO Box 43, Jannal, 2226. Help offered: *Space Quest 1, 2, 3, Larry 1, Zak McKracken, Hitchhikers' Guide.*

G. Beaven of PO Box 254, Wyong, 2259. Help offered: C64 ... *Last Ninja, Might and Magic, Ultima 5, Labyrinth, Head Over Heels.* Amiga ... *Eye of the Beholder I & II, Search for the King, Might & Magic III and Black Crypt.* Please enclose \$2 to cover photocopy costs.

Shane Robertson of 14 Sonoma Road, Budgewoi 2261. Help offered: *Dodgy Geezers, Mask of the Sun, Hobbit, Dragonworld, Fish, Pay Off, Runaway, Wishbringer, Zorks, Bards Tale I, II, III, Bastow Manor, Voodoo Castle, Zak McKracken, ZZZZZZ, Castle Master 1 & 2, Yukon, Winter Wonderland, Urban Upstart, Unknown, Time Machine, Stainless Steel Rat Saves the World, St Jives and Skull Island, Deadline, Stationfall, Ballyhoo, Lurking Horror, and Suspect, Miser, Lost in the Amazon, Apache Gold, Castle Adventure, Castle of Mydor, Lost City, Hitchhikers' Guide, Harboro, Gypsum Caves, Guild of Thieves, Dog Star Adventure, Critical Mass, Corruption, Cavern of Riches, and Castle Quest, Adventureland (Public Domain), African Adventure, Alien, Shifting Sands, Buck Rogers 1, Shard of Inovar, Rigals Revenge, Return to Eden, Red Moon, Price of Magik, The Pawn, Murder on the Waterfront, Dungeon (Public Domain).*

Jonny Corfield of 56 Third Street, Boolaroo, NSW 2284. Jonny can help in *Larry 1, 2, 3, Kings Quest 1, 2, 3, 4, Manhunter 1, Police Quest 1, 2 and Space Quest 1, 2, 3.*

Jen Howell of 30 Frewin Avenue, Woodberry, NSW 2322 can offer help in *Cruise for the Corpse, Monkey Island 1 & 2, Space Quest 1, 2, 3, Kings Quest 1, 2, 3, 4, 5, Maniac Mansion, Operation Stealth, Indy Crusade and Indy Atlantis, Larry 1, Fascination, Police Quest and Deja Vu.*

David Cucvara of 18 Holford Crescent,

Gordon, NSW 2072 can help out in the following games *Curse of Azure Bonds, Champions of Krynn, Death Knights of Krynn, Ultima VI, Gold Rush, Hero's Quest (Sierra), Space Quest 1-3, Larry 1-3, Kings Quest 1-3, Police Quest 1, 2, Another World and Dragons Breath.* David has set a limit of three games per letter.

Andrew Malcolm of 13 Shiral Avenue, Kanahooka NSW 2350 can offer help in *Hero's Quest 1, 2, Space Quest 1, 2, 3, Kings Quest 1-5, Heart of China, Monkey Island 1 & 2, Loom, Indy and Last Crusade, Enchantress, Hook, Larry 1, 2, 3, Maniac Mansion, Police Quest 1, 2, 3, Alternate Destiny, plus a heap more games.*

Ryan Tan of 21 Albion Street, Concord, 2127. Help offered: Most games!

Caroline Africh of 26 Cowl Street, Greenacre, 2190. Help offered: *Maniac Mansion.*

Y. Chan of 4/91 Drumalbyn Road, Bellevue Hill, 2023. Help offered: *Bloodwych.*

David Marjanovic of PO Box 342, Revesby, 2212. Help offered: *Space Quest I, II, Larry I, II, Shadowgate, Deja Vu, Zak, Arazok's Tomb, Pawn, Deja Vu II, Guild of Thieves, Manhunter New York and Leather Goddesses, Space Quest 1, 2, 3, Manhunter New York, Manhunter San Francisco, Deja Vu 1, 2, Shadowgate, Uninvited, Monkey Island, Arazoks Tomb, Guild of Thieves, Operation Stealth, Zak McKracken, Indiana Jones and the Last Crusade, Larry 1 & 2.*

Aaron Upcroft of 24 Ryan Street, Balgownie, 2519. Help offered: *Zork III, Deadline, Tass Times in Tone Town, Lurking Horror, Fish, Maniac Mansion, Zak McKracken, The Hobbit and Not A Penny More, Not A Penny Less.*

Philip Mayer of 27 Digby Court, Glen Innes, 2070. Help offered: *Bards Tale 1, 2, 3 and Zork 1, 2, 3.*

Paul McLachlan of 60 Hertfield Street, Blakehurst, 2221. Help offered: Hints and maps for all of the older Infocom titles.

Daniel Leggett of 16 Knighton Place, South Penrith 2750. Help offered: *Champions of Krynn, Death Knights of Krynn, Police Quest 1 & 2, Kings Quest 1 to 4, Space Quest 3, Codename Iceman, Gold Rush, Man Hunter New York, Indy, Larry 1, 2, 3, and It Came from the Desert.* Please enclose a stamped addressed envelope.

Victoria

Shaun Hately of 45 Moreton Street, Frankston North, Vic 3200 can offer help in *Bards Tale III, Death Knights of Krynn, Secret of Silver Blades, Police Quest 1, 2, 3, Ultima 6, 7, Kings Quest 1, Eye of the*

Beholder 1, 2, Champions of Krynn, Pool of Radiance, Curse of Azure Bonds and Bards Tale 1 & 2.

Robert Cameron of 11 Wallaby Avenue, Kangaroo Flat, Vic 3555 can offer help in *Bards Tale II* as well as a very strong character disk (you supply the disk). Robert can also help out in *Maniac Mansion, Larry 1, 2, Infidel* (with language translation), *Lurking Horror, Suspect, Ballyhoo, Hitchhikers' Guide to the Galaxy, Suspended, Starcross, Deadline, Witness, Moonmist, Planetfall, Stationfall, Enchanter, Sorcerer most of Spellbreaker, Zork 1, 2, 3, Beyond Zork, Zork Zero, some of Keef the Thief and Search for the King.*

Tim Wilson of 16 Riatta Court, Rye Vic 3941 has hints, solutions, and some maps to the following games: *Dr Brain, Covert Action, Eye of Beholder 1 & 2, Police Quest III, Pool of Radiance, Curse of Azure Bonds, Secret of Silver Blades, Pools of Darkness, Champions of Krynn, Death Knights of Krynn, Dark Queen of Krynn, Gateway to Savage Frontier, Treasures of Savage Frontier, Hook, Monkey Island 2, Lure of the Temptress and Kings Quest V.*

Chris Stratton of 2 Suding Close, Wy Yung, Vic 3875 can offer help in: *Monkey Island 1, Lure of the Temptress, Larry 1, Kings Quest 1 2 3 & 4, Buck Rogers 1, Bards Tale 1 and Eye of the Beholder* (maps if need be).

Kieran (Kizz) Hanrahan of 39 Harold Street, Wendouree Vic 3355 can offer help in: *Pool of Radiance, Secret of the Silver Blades, Bards Tale 3, Dark Queen of Krynn and Zork 1.*

Peter Nuzum of 50 Smeaton Close, Lara 3212. Help offered: *Maniac Mansion, Zak McKracken, Runaway, The Last Planet, Deja Vu, Bastow Manor* and most of Scott Adams adventures.

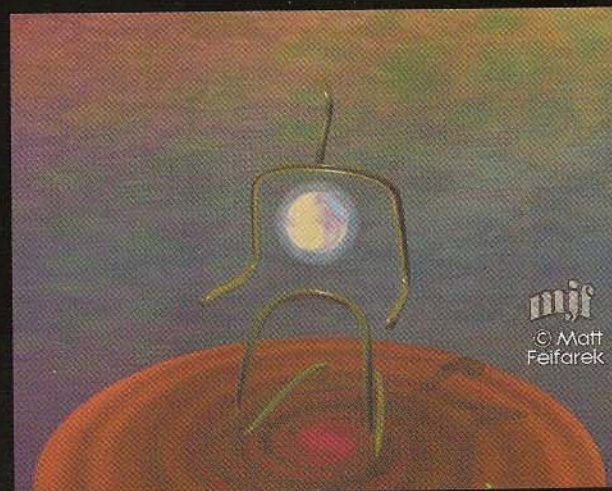
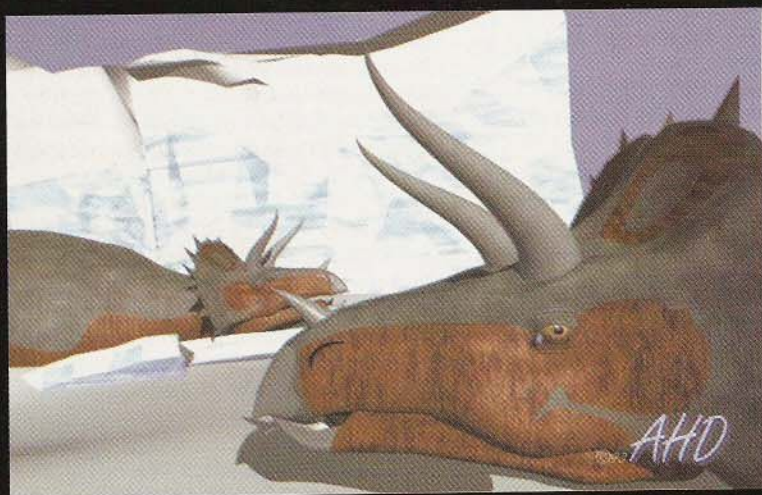
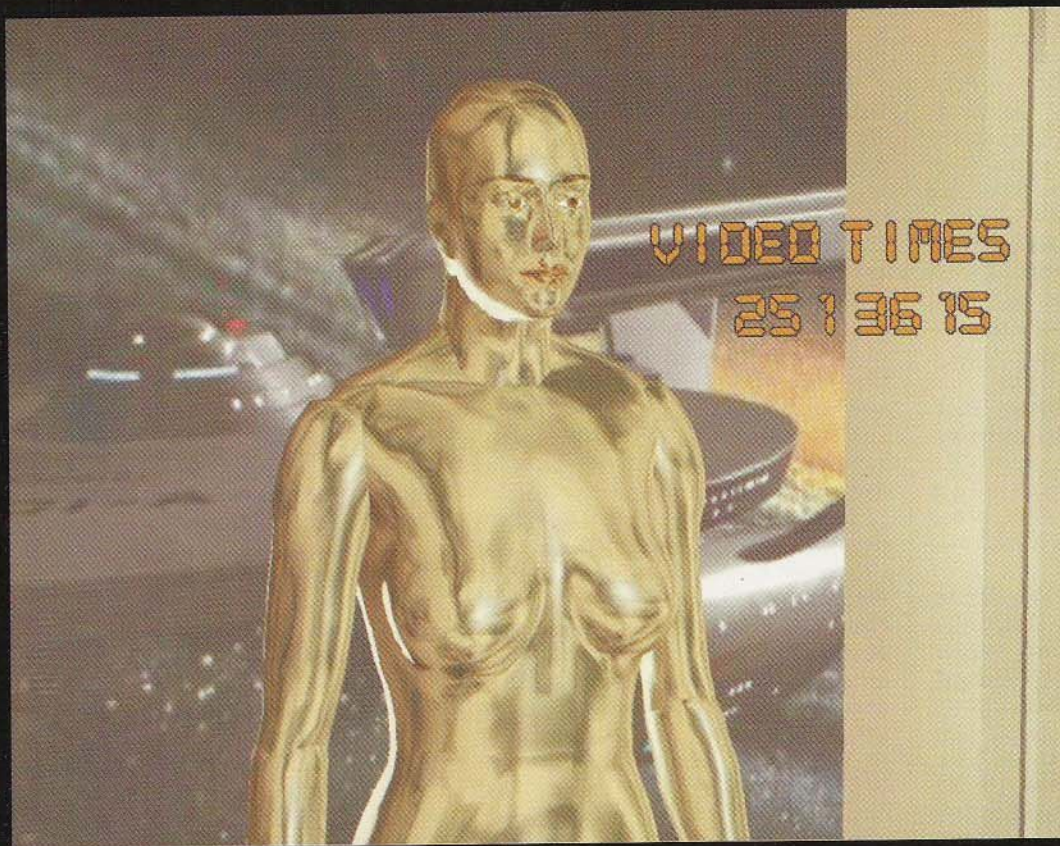
Andrew Malden of 29 Alkira Avenue, Geelong 3215. Help offered: *Monkey Island I & II, Maniac Mansion, Might and Magic 3, Ultima IV, Hitchhikers' Guide, Robin Hood, Larry 1, Kings Quest V, Lemmings, Bards Tale, Zak McKracken, Indy, Cruise for a Corpse.* Please send 50c for copying costs.

Mick and Meredith Blackmore of PO Box 1356, Swan Hill, 3585. Help offered: *Maniac Mansion, Castle of Terror, Lost City, Oasis of Shalimar.*

Ben Moore of 53 Douthie Road, Seville East, 3139. Help offered: *Eye of the Beholder, Heros Quest, Heart of China, Monkey Island, Gods, MegaLoMania, Kings Quest V and Last Ninja III.*

Steven Fochi of 40 Dover Street, Albanvale 3021. Help offered: *Moebius (+ maps), and Leather Goddesses.*

Amiga ART



GALLERY



Background

BELOW: Batman Shield by Juha Kallioinen
Imagine 2.0 in 640x480x24bit Trace mode.

LEFT: Dinos and Icebergs

RIGHT: Hall, rendered using Imagine2.0,
4000/040 and 10Meg of RAM. Original Image size
was 985x704, in RGB8-24 bit and took 17hours to
render. - Craig Donaldson.

Welcome to our new Amiga Art Gallery.
Following in the tradition of Professional Amiga
User magazine, we've decided to kick off a
regular spread of the best Amiga Art out there.
So, if you've got something to contribute, why not
shoot us a disk - or modem the file to
our simple BBS on (02) 816 4714.

*(please include your name, tel no and how you
created the image)*



ENTERTAINMENT

Dorothy Millard of 12 Venetian Court, Croydon 3136. Help offered: Almost every adventure game for the Commodore 64.

Scott Pitcher of 13/176 Rathcoun Road, Reservoir 3073. Help offered: All Scott Adams adventure games.

Stefan Lamont of 209 Landsborough St, Ballarat North 3350. Help offered: *Kings Quest 1, 2, 3, Leisure Suit Larry 1*.

Michael Jones c/o Vision BBS BBS = (03) 569 4442 VOICE = (03) 563 5125.

Martin McLaren of 39 Jones Crescent, Rosanna 3084. Help offered: *Pool of Radiance, Bards Tale II, III, Police Quest, Monkey Island and Eye of the Beholder*.

Wade McGregor and Greg Eames of 9 Kentworthy Place, Mount Pleasant, Ballarat 3550 have formed a group known as the AMIGA DUO. Help offered: *Treasure Island Dizzy, Indy, Maniac Mansion, Zak McKracken, Monkey Island, Snoopy and Peanuts, Space Ace, Dragons Lair, Dragons Lair: Time Warp, Lemmings I & II, Targhan and Three Stooges*.

Stuart George of 66 Sharon Rd, Springvale 3171 can help in a huge range of adventure and roleplaying games for Amiga and PCs, including *Curse of Azure Bonds, Heroes Quest I, Future Wars, Infidel, Hitchhikers' Guide, Magic Candle, Manhunter II, Zork Zero, Buckaroo Banzai, Witness, Conquests of Camelot, Indy and the Last Crusade, Zork I, II, Lurking Horror, Space Quest III and Codename: Iceman*.

Heath Kirby Miller of RMD 221, Sunraysia Highway, Stuart Hill 3478. Help offered: A good range of C64 adventure and arcade games. Please enclose 50 cents for solutions and always enclosed a large stamped addressed envelope.

Travis Howell of 1 Aeulinga Ave, Aspendale 3195. Help offered: *Pool of Radiance, Curse of Azure Bonds, Secret of the Silver Blades, Champions of Krynn, Death Knights of Krynn, Buck Rogers: Countdown to Doomsday, Gateway to the Savage Frontier, Kron, Hunchback Adventure and Liberty*. If you send Travis a C64 diskette and stamped envelope, he'll return it packed with a party of characters.

Matthew Armstrong of 11 Harcombe St, Bell Post Hill Geelong 3215. Help offered: A good range of Amiga adventure games. For full solutions send 50c for copies. Games include: *Bards Tale, Colonels Bequest, Curse of Enchantia, Dagger of Amn Ra, Battletech, Dark Seed, Kings Quest VI, Omnicon Conspiracy, Space Quest 5, Indy & Fate of Atlantis, Rise of the Dragon and Heart of China*, and *Countdown*.

South Australia

Darren Mummery of 28 Cunningham

Court, Golden Grove 5125. Help offered: A fully equipped high level group of adventurers for *Pool of Radiance, Curse of Azure Bonds* and *Silver Blades* for the Amiga versions. Please send Darren a formatted disk and a stamped addressed envelope. Darren can also offer help in *Labyrinth, Bastow Manor, Dan Dare* and other older C64 adventure games, as well as *Eye of the Beholder, Champions Krynn, Monkey Island, Police Quest II, Pools of Darkness*.

David Lear of 33 Ludgate Hill Road, Aldgate, SA 5154 can help out in the following C64 games: *Boggit, Dallas Quest, Dracula, Eureka (Prehistoric), Kayleth, Kentilla, Knightmare, Kobayashi Naru, Lords of Time, Murder on the Waterfront, Mindshadow, Never Ending Story, Quest for the Holy Grail, Ring of Power, Runaway, Subunk, Bastow Manor, Wizard of Oz, Zork I, Zork II*.

David Sark of 54 Madgalene Terrace, St Mary's 5043. Help offered: *Larry II, III, Operation Stealth, Codename Iceman, Shadow of the Beast II, Loom, Neuromancer, Pool of Radiance, Heroes Quest, Kings Quest IV*.

Paul Andrews of 10 Sovereign Street, Hallett Cove 5158. Help offered: *Bastow Manor, Island of Spies, Cavern Adventure, Temple Curse, Murder on the Waterfront, Zork I and Castle of Mydor*.

David Stacey of 3 Tigree Drv, Hallett Cove 5158. Help offered: *Maps for Bards Tale 2, 3, Pool of Radiance*, as well as interesting hints and tips. Hints and tips for *The Story of the United Seas*. Is willing to give copies to those who write to him with a stamped addressed envelope. (+ Heaps of other games, too many to mention).

Andrew Gormly of PO Box 123, Walkerville, SA 5081 can help out in ... *Bards Tale 1, 2, 3, Zork 1, 2, 3, Blade of Blackpool, Cyborg, Deadline, Death in the Caribbean, Enchanter, Gruds in Space, Infidel, Planetfall, Sorcerer, Starcross, Suspended, Ultimas I, II, III, IV, Witness, Jinxter, Pool of Radiance and Hillsafar*.

Jason West of 74 Matthews Avenue, Seaton SA 5023 can help out in *Maniac Mansion, Deja Vu, Zork and Famous Five*.

James Wilson of 11 Marlborough Avenue, Victor Harbour SA 5211 can help in a huge range of adventure, RPG, and arcade games for the Amiga. Ensure you enclose a nominal fee for photocopy costs.

Queensland

Adam Ceremuga c/o J. Cermuga, Dept of Elec Eng, James Cook Uni, Qld 4811 can offer help in the following games: *Another World, It Came from the Desert, Rocket Ranger, Defender of the Crown,*

Monkey Island 1 & 2, Police Quest 1 & 2, Indiana Jones and the Fate of Atlantis, Flashback, Conquests of Longbow (Robin Hood), Larry I, III, V, Sim City, Sim Ant, and the first two chapters of *KGB* and *Phantasy III*.

Jim Waller of 35 Kanturk Street, Ferny Grove, Qld 4055. Help offered: A huge range of games!

Scott Logan of 9 Colington Street, Mansfield, Brisbane 4122. Help offered: *Pool of Radiance, Zak McKracken, Temple Curse, Last Planet, Island of Spies, Adventureland, Azure Bonds and Corruption*.

Adam Breen of PO Box 1577, Toowong, Brisbane 4066. Help offered: *Bards Tale I, II, Ultima 4, Champions of Krynn, Hitchhikers' Guide, Larry I, Zork I, II, Millennium, Dungeon Master and Leather Goddesses*.

Derek R. Monz of 12 Noonan Street, Heatley 4814. Help offered: *Larry III, Elite and Millennium 2.2*.

Brendan Burns of 8 Nelson Street, Ormiston 4160. Help Offered: *Lord of the Rings, Hobbit, Zork 2, 3, Wishbringer, Kings Quest III, Deja Vu, Dracula and Hitchhikers' Guide*.

Brad Roberts of 43 Olearia St, Everton Park 4053. Help offered *Bards Tale III, Chrono Quest, Hulk, Zorks, Infidel, Deadline, Starcross, Rigels Revenge, Asylum, Dallas Quest, Mindshow and Uninvited*.

Rhonda Toms of 18 Alawoona Street, Redbank Plains 4301. Help offered: *Astrobus Affair, Seabase Delta, Grand Larceny and ZZZZ*.

Mark Healy of 78 Ipswich Street, Esk, 4312. Help offered: A good range of adventure games.

Ben Christensen of 1 Margaret Street, Ayr Qld 4352 can help out in *Space Quest 2, Police Quest 2 or Monkey Island 2*.

Australian Capital Territory

Chris Collins of 22 Moroney Street, Fraser 2615. Help offered: Hints and tips for a huge range of adventure and arcade games.

Alex Stivala of 6 Schey Place, Spence 2615. Help offered: *Trinity, Hitchhikers' Guide, Hobbit, Castle of Terror, Maniac Mansion, Lords of Time, King Solomons Mines*.

Kathy Kupresak of 8 Wuronga Hill, Bonython, ACT 2905. Help offered: *Ultima III, IV, Bards Tale I, II, Times of Lore, Leisure Suit Larry, Zak McKracken, Leather Goddesses, Wishbringer, Legend of the Sword, Kings Quest I*.

Allan Mills of 36 Pickworth Street, Holt 2615. Help offered: *Maniac Mansion, Ultima 1, 2, Neuromancer, Space Quest 1, 3, 4,*

Leather Goddesses, Larry 3, Pool of Radiance, Azure Bonds, Indy & Fate of Atlantis, Conquests of Camelot, Countdown, Eye of the Beholder I & II and for starters in *Kings Quest IV*.

Ian Myers of 1 Phillipmore Place, Charnwood 2615. Help offered: *Legend of the Sword* and *Deja Vu II*.

Western Australia

Andrew McCulloch of 33 Carvie Street, Hillman WA 6168 can offer help in *Castle of Dr Brain, Neuromancer, Populos II, Railroad Tycoon, Thunderbirds Mission II* and *Treasure Island Dizzy*.

Mitchell Rashbrook of 34 Conidae Drive, Heathridge 6027. Help offered: Many Amiga and C64 disk adventures.

Felicia Holmes of 70 Sheffield Road, Wattlegrove WA 6107. Help offered: *Champions of Krynn, Death Knights of Krynn, Heroes of the Lance, Zak McKracken, Faery Tale, Kings Quest II, III, Police Quest I, II, Space Quest III, Quest for Glory I and II, Willy Beamish, Countdown to Doomsday, Operation Stealth, Monkey Island* and *Legend of the Sword 2*.

Andrew Phang of PO Box 1083, Canning Vale WA 6155. Help offered: Most adventure and roleplaying games.

Jozsef Toth of 11/8 Garnett Place, Balga 6061. Help offered: *It Came From The Desert* and *Lords of Time*.

Turrican of 20 Braden Way, Marmien 6020. Help offered: *Police Quest, Indy, Treasure Island, Dizzy*.

Darren of 20 Crufts Way, Canning Vale 6155. Help offered: *Operation Stealth, Pool of Radiance, Champions of Krynn, Dungeon Master, Bloodwych, Bards Tale I, II, Millennium, Phantasie I, III, Faery Tale, Knight Orc, Jinxter, Shadowgate, Kings Quest I, III, Larry I, II*.

Andre Thomas of 9 Dean Place, Lockridge WA 6054 can help out in ... *Mega-lo-Mania, Hunter, HeroQuest, Eye of the Beholder, Monkey Island 1, Monkey Island 2, Elvira (maps), Kings Quest I-IV (most), Kings Quest V, Myth, Dungeons of Avalon 1 & 2 (most), Curse of Enchantia, Xenomorph, Flash Back, Alien Breed 92, Indiana Jones and the Last Crusade, MegaLo-Mania, Another World, Gods, Eye of the Beholder*, and *Bards Tale III*.

Aaron Danks of 192 Shaftesbury Avenue, Bedford WA 6052. Aaron has complete solutions to *Ween* and *Larry 1* and can offer small hints and level codes for *Archer McLean's Pool, John Madden Football, Road Rash (passwords), Desert Strike (passwords), McDonald Land, Sensible Soccer, History Line* and *Monkey Island 1 & 2*.

Tasmania

Cathi Cherry, 30 Bayview Road, Lauderdale Tas 7021, is vice-president of Friendz & Contax and she writes the adventure column for their bi-monthly magazine. Cathi can offer help on quite a few C64 adventure games. Write to her, or give a bell on (002) 487 103.

Northern Territory

Aaron Davis 2A Careela St, RAAF Base, Darwin NT 0820. Help: *Space Quest I, II, III, IV, Kings Quest IV, V, Maniac Mansion, Police Quest II, Black Cauldron*.

Realm's Trading Post

You don't just get free hints, free tips, free contacts, and free publicity when you write to the Realm, you also get to display free classified adverts. You can advertise your old games to sell or swap or you can send out a plea if you are after a particular game. This is not, however, an avenue to swap or sell pirated software! If you do then you are breaking the law and if caught can get stooged for thousands of dollars as well as digging a deeper grave for our beloved Amiga. The address to write to is: Realm's Trading Post, 12 Bridle Place, Pakenham, Vic 3810.

Darren Chapman of 1a Wearden Road, Belrose NSW 2085 has *A-Train* and he is willing to swap it for *Sensible Soccer* or *Chaos Engine* or sell it for \$60. Darren adds that his *A-Train* is in perfect nick. Darren is also in the market for *Railroad Tycoon*.

Brian Grinter of 166 Kildare Road, Blacktown NSW 2148 has *Monkey Island I, Leisure Suit Larry 3, Zork Zero* and *Dungeon Master* for \$30 each (negotiable), and also *Guild of Thieves* and *Hitchhikers' Guide to the Galaxy* for \$20 each (also negotiable). Brian will swap his games for right product. You can give Brian a bell on (02) 621 3130.

Steven Burns of 2A Arden Street, Waverley NSW 2024 has had past success with the Realm Trading Post and has come back for more. Steven has *Flashback, Superfrog* and *Dune II* all for \$35 each, and *Dark Seed, Wing Commander, Fire and Ice* and *Vikings* for \$25 each. Steven will consider swapping them for any decent games (such as *Eye of the Beholder II* or *Legends of Valour*). Give Steven a ring on (02) 665

2276 after 4 pm.

Michael Harrison of 2 Paul Court, Christies Downs SA 5164 has a brand new AGA version of Sid Meier's *Civilisation*. He will sell the game for \$60 or swap it for any version (AGA preferred) of *Elite 2*. Michael also has *Battle Chess* which he'd like to swap for a decent non-shoot-em-up game.

Nick Zografos of 37 New England Drive, Kingsgrove NSW 2208 has a few games for sale, including *Superfighters Pack (WWF/Final Fight/Pitfighter)* for \$25, *Blues Brothers* for \$25, *Megomania/First Samurai* for \$30, and *Black Tiger* for just \$15. Nick will swap all of the above games for *Lionheart* or *Assassin*, or any three for *John Maddens Football*. Nick is also in the market for *Pinball Fantasies*. Don't like your chances on that last one, Nick!

The Adventure Problem Centre

I've had to keep this down to a minimum due to all the space the Clever Contacts list has taken. If you can help either of these two dudes out, please write in quickly.

Gary Pettinger of Whyalla Norrie in SA is currently stuck in *Black Crypt*. He is stuck on level ten in front of the magic wall. Most of the level is completed except for this room/passageway beyond the magic wall and two locked doors. Gary adds ... "I ended up cheating and looked in my manual and one of the keys is beyond the next two magic walls - but I can't knock them down. There were several dispelling scrolls around but the ones I used never worked." Any takers for this problem?

Ben Christensen from Ayr in Qld is losing many nights' sleep playing *Cruise for a Corpse*. Ben writes ... "I can't find any keys and only three passengers, and all the doors are locked to the rooms. Also, I can't get into the kitchen and I need a hammer and some pincers. I have found a note on the floor of the study and the receipt for the necklace, and that is it!" Sounds nasty, Ben (who is also stuck in *Kings Quest II* looking for the riddle for the last door).

That's all folks!

ACAR PD-Games

Disk 2

What's this? A review of our very own brand new ACAR PD Games Disk Number 2? Isn't that a bit like asking Derryn Hinch whether he's the most talented ex-TV presenter in Australia?

Well, yes. And as you'd expect, we're going to say all sorts of nice things about it. After all, our good mate and sometime-writer Graeme Beaven compiled it especially for ACAR readers. So take it for granted, we're extremely biased. On the other hand, at just five bucks plus the cost of a disk and postage, it's not as if we're asking you to pay an arm and a leg! The fact is, we've compiled our ACAR PD Games disks to save you all the fuss of hunting through endless PD collections - in our brand new Disk 2, we're offering a selection of nine nice PD games, guaranteed to give you lots of fun at a very reasonable price. So check out the details.

The quaintly named *Deathbringers* is a classic space shoot-em-up with clean and simple graphics. Borrowing heavily from games like *Galaxians*,

it's fairly rudimentary - mind you, that doesn't mean it's easy. The aliens get faster, the levels get harder, and you'll soon find you're hooked. By the way, the actual graphics are better than our screen shot - we've simulated the background and the title box, as our screen grabber only grabbed the active sprites.

The Gallows is a Hangman type game, which means you have to fill in the blanks and guess words. Guess letters by either using the mouse and the letters across the bottom of the screen or by using the keyboard, and be warned - you'll go to the gallows after the seventh miss.

New words can be added to included list, making *The Gallows* an excellent tool for spelling revision. The word list can have 9,450 words, and each word can have up to 20 characters. Good ol' Hangman has been helping kids learn spelling words for yonks - *Gallows* automates the process, and it's lots of fun.

Trix is a public domain version of the time honoured *Styx*, one of the

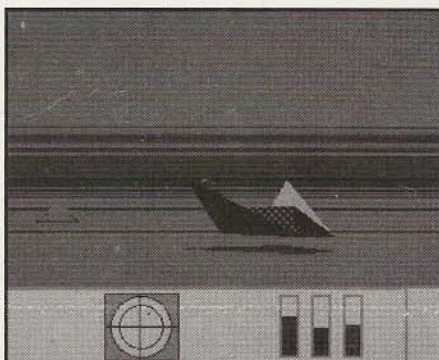
first games I ever played on my Commodore 64. The object of *Trix* is to colour in as much of the playfield as possible by drawing lines enclosing rectangular sections. You must avoid the Trix, the Sparkles and the Foos. The Trix is a swirling set of coloured lines in the playfield that will kill you if it touches your line. The Sparkles are white clouds that travel around the playfield boundary in opposite directions. The Foo is another sparkle that races around the line you're drawing if you're foolish enough to hesitate. Great game, great fun.

Missile Command is another golden oldie, and it needs almost no introduction. You're protecting a city from a hail of incoming meteorites - move your crosshair cursor across the night sky and blast them to dust with your missile launcher. It's still just as much fun as ever, and this PD version is every bit as good as the arcade original. What can I say about *Croak*? Author Selwyn Stephens claims it's an Amphibian Migration Simulation, and he's absolutely right. It's also a near-

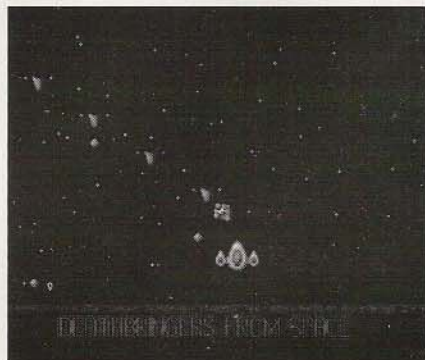
Croak



Nebula



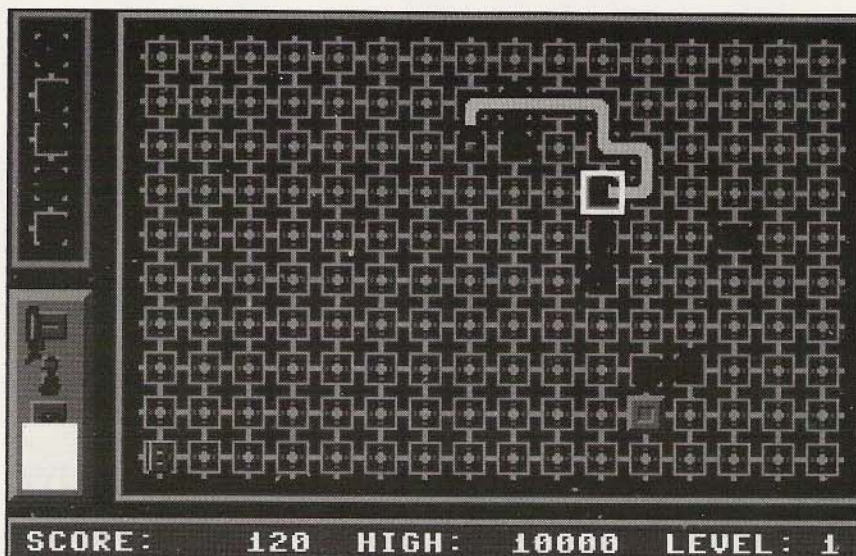
Deathbringers



perfect rip-off of the ancient and mega-popular *Frogger*. Guide the little green guys across the roaring highway, hop 'em across the logs floating down the river, and nestle them neatly in their little froggy homes. Apart from the fact that it's flawlessly programmed, the best thing about *Croak* is the simultaneous two-player mode, that transforms the game into a vicious contest for homes and bonuses. By the way, when you "croak", you leave rather nasty splatter marks on the road. Watch 'em - they're slippery!

There's plenty more ... like *Hemroids*, a painfully named *Asteroids* clone. And *Nebula*, a rudimentary but fast 3D filled vector space game that'll have you rushing around a planetary surface shooting at all sorts of interesting origami objects. *Blackbox* is a simple looking affair with a numbered grid - I haven't played it yet, because it looks like it needs brainpower.

Finally, there's *Pipeline II*. And what more can I say than it's a stinking-rotten-annoying-frustrating game that I can't stop playing. Quick! Con-



Pipeline II

nect the pipeline pieces before the oil starts flowing! It's not nearly as easy as it sounds.

Basically, the *ACAR Public Domain Games Disk 2* is packed full of fun stuff. Public Domain games of the nineties are the equivalent of the arcade games of the eighties - which

really makes your mouth water for *ACAR PD Games Disk Number 97*, due for release in the year 2003!

To order, send a blank disk, a stamped, self addressed envelope, and a cheque or postal order for just \$5.00, to: ACAR PD Games, PO Box 23, Maclean, NSW 2463.

Australian Commodore & Amiga Review back issues still available

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Remember when computer games were plain old fun? Phil Campbell does. Happy days are here again, with ...

MEAN ARENAS

FACTBOX

Mean Arenas is pure fun. Sure, it's a lot like *Pac Man* - but so what? That's why it's fun!

Ratings:

Graphics:	79%
Sound:	82%
Gameplay:	88%
Overall:	84%

Distributed by Hot Point Software (02) 428 7791. RRP \$69.95.

Take a liberal dose of good ol' fashioned *Pac-Man* - one of the most popular computer games of all time - add a pinch or two of *Terminator*-style firepower, and mix with a twist of TV-Game-Show-style presentation. What have you got?

Well, you could call it the ultimate in mixed metaphors. Or you could complain that it's just a hopeless mish-mash of unrelated ideas. But the reality is, it's the makings of the best night of computer gaming fun I've had for months. And possibly even years.

Mean Arenas is simultaneously entirely original and entirely derivative. Heaps of games resort to the tired old "simulated TV Game Show" theme - think back to *The Killing Game Show* for a recent example. Typically, the game will start with a commentator on the screen, introducing the action.

And *Mean Arenas* is no different. Well okay, there are two commentators. It's a little bit different.

On the up-side, these guys are actually quite entertaining. With nicely digitised voices, exploding microphones, and Station logos that fall from the wall, they'd be more at home on a blooper tape than live-to-air. Through the game, you'll hear them throwing in plenty of gratuitous comments - "Mahvlous, Absolutely Mahhhvlous." "Did'ja see that?" "Yes indeed." And I'd almost swear that Clint Eastwood throws in a

cameo performance with "What a guy!"

So what about the game play? There's no denying the fact that there's a strong smell of *Pac-Man* in the scenario. The game screen displays a top-down view of a maze; on every floor tile, there's a dot. Look closely, though, and you'll see they're actually gold coins. Gone are the *Pac-Man* power pills, replaced by a number of high tech goodies like Invulnerability Orbs, Speed Shoes, and power packs.

The ancient cheesy-looking hero is long gone too, replaced by an armoured warrior. He's fully armed, he's nicely animated - but his job is exactly the same. Race around the maze, grab all the gold, and make life as miserable as possible for all the enemy life forms that get in the way.

Tactics are crucial. If you're surrounded by a group of guards, you've got two choices - either blast them with your limited supply of ammo, or run for

an Orb. They're strategically located around the maze, and you'll need to make sure you only use them when you absolutely need them.

If you've suffered a bit of damage, keep an eye out for the first aid station - a "red cross" icon that's usually in an out of the way corner of the maze. And if you're looking for a quick route to the other side of the screen, hop on a teleporter - you'll be there in no time.

The mazes - or, more correctly, Arenas - in *Mean Arenas* are far more complex than anything *Pac-Man* ever encountered. In fact, to travel from one end to the other you'll scroll smoothly through almost three full screens. Graphically, they're very nice too. Level three, for example, features green, marble-tiled floors, with orange neon-glowing walls.

The control system is worth a mention too. It's a simple enough up-and-down and round-and-round joystick affair, but it's perfectly tuned - steering your little guy around the maze is smooth and easy.

In the end *Mean Arenas* may be just an old idea revisited - but who cares? The fact is, I'm stuck on level three, and I'm desperate to make it to the next stage. And it's the sort of desperation that doesn't come too often - there are plenty of slick, glossy mega-games that simply don't generate the same sort of thrill. □





Here's a platform hopping game with an interesting story line, and plenty of colour and action. Trouble is, it's not very original, says Juris Graney.

First things first - I must tell you the story behind the game, or this review won't make any sense at all. Joe Maroni is the son of a family of Italian immigrants who ran a successful pizza restaurant which was blown up by the Mafia. The reason? Joe's old man wouldn't let the Mafia extort money from him. That's when Joe became a street kid, sleeping all day, and roaming the streets at night. Joe's into all the typical street stuff - especially "street painting", otherwise known as graffiti.

That's where he met Nat (the Rat) Gonzales. One fateful night the two rebels found themselves painting on the same wall. The story gets a little boring here, but let's just say they became the best of friends.

Well, one night the guys were painting their walls when a group of thugs surrounded them. Joe and Nat beat them up, but were stopped by the police. They ran, and found refuge in a delivery van. In this van were heaps of comics. The guys started reading them, and lost track

of time. By the time they realised where they were, the truck had taken them far from the city - into the scrub near a MYSTERIOUS LOOKING CASTLE. Naturally, they had to investigate. Otherwise, there wouldn't be a game!

Here's where you come in. Control Joe through the six levels of castles, labyrinths, pyramids and so forth until you get to the end of the game and watch the superb end of game sequence.

Folks, I have to say that *Yo Joe!* is just like every other platform game I have ever played. I can't see how companies can keep making the same games over and over. I mean, I like it okay ... but the repetitiveness of these games is depressing. On the upside, I have to admit there's nothing better than coming home from a hard day at work and running riot in an illusionary world created by somebody else's distorted mind.

Graphically speaking, *Yo Joe!* is top notch. The scrolling is perfectly smooth, the colours are radiating and the characters are perfect in every detail. The lev-

FACTBOX

Original it ain't! Colourful, smooth, and frustrating? Definitely. That's the verdict on *Yo Joe!*, the latest Amiga platform hopper. The addition of level codes would have helped relieve the frustration!

Ratings:

Graphics:	87%
Sound:	86%
Addictiveness:	56%
Originality:	2%
Playability:	67%
Overall:	68%

Distributed by Metro Games
(03) 329 2999. RRP \$69.95.

els abound with jewels and weapons which will help you along the way. Weapon-wise, the game has little originality, except for a hefty chainsaw which does a lot of damage. The occasional extra life is scattered around, but there's not much else of any importance.

The worst thing about the game is that it's simply too repetitive - and there are no end of level codes, so when you die it's back to square one!

Sound-wise, *Yo Joe!* is pretty reasonable. The sound track provides a good atmosphere for each level. The music is upbeat, entertaining and definitely worth listening to as you slog it out with the end of level baddies.

If you're looking for an original game then keep going. If you want another scrolling platform game then *Yo Joe!* is for you. No originality, but lots of colour and music, and plenty of platform hopping action.



CD32 Quickshots

D/GENERATION

The packaging describes *D/Generation* as "virtual reality meets action adventure." That is a little overstated - virtual reality it ain't - but it is a great 3D action adventure game! The game is set in the Genoq company's Singapore lab in the year 2021.

The *D/Generation*, a deadly artificial organism with the power to disguise itself as anything, is loose in the building. The workers are still trapped inside, including Jean-Paul Derrida, the head scientist and creator of the *D/Generation*. Your task? To rescue the workers and get a package to Derrida inside the building.

Also loose are the A, B, and C/Generations - you'll need to neutralise them before you tackle the D-Gen heavies. So far I've only encountered A and B. The former look like those "space hoppers" you used to be able to buy - big orange bouncing spheres that gobble you up. The Bs are bouncy

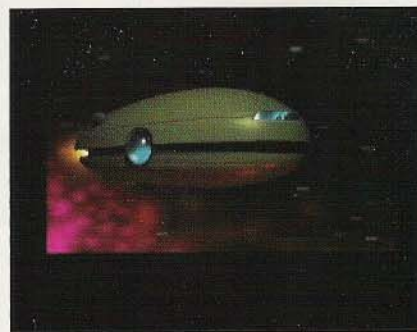
purple cylinders that jump up and down on your head and squash you into the floor. There are other equally interesting ways to die - like being electrocuted by the security devices in the floor.

The game progresses through many rooms as you work your way up from the 80th to the 90th floor. The 3D perspective view takes some getting used to, but is impressive. New scenes take about half a second to load from CD - a far cry from the days when you had to endure minutes of disc crunching between screens!

So far I've managed to get up one storey, but can't find the password to get me to the 82nd floor. I'll keep trying! For now let me say that on first impressions *D/Generation* passes the test as a good adventure game. It's amusing, exciting, interesting, and requires a good mixture of brainwork and skill. Recommended.



WHALE'S VOYAGE



This is the sort of game you can't review after a short amount of play - it's huge! *Whale's Voyage* is an interactive adventure quest mixed with a dash of role playing, and it's set in space.

It's called *Whale's Voyage* because your spaceship looks like a big friendly whale! The game is somewhat like *Starflight* - a mixture of *Bard's Tale* and *Elite*. Choosing your crew is interesting, but excruciatingly slow. You actually have to determine their genetic makeup by choosing their parents, genetically modifying them, and deciding what primary and high schools to send them to! Some of the parents you can choose look suspiciously like some well known glitterati, such as Madonna and Harrison Ford. And the guy in the shop where you equip your ship talks very much like big Arnie!

The graphics and sound track are predictably good, but since I've only had time to visit one planet so far, I can't comment fairly on the gameplay yet. All I can say so far is that *Whale's Voyage* is not for the impatient. As with most games of this type, it may not appeal to those who prefer good old non-cerebral fast and furious arcade play. It requires patience, planning, puzzling, and (shock, horror!) a thorough reading of the manual.

OVERKILL

Do you think the best type of game is one you can just load and play? Then try *Overkill*! Programmed in Australia by Digisoft, and distributed by Mindscape UK, this game was one of the first to take advantage of the new AGA machines' graphics capabilities. You may have seen it running on several A1200s at the World of Commodore show in Sydney last July. And now it's available on CD32.

Overkill is bundled with another game called *Lunar-C*. On the one disc, you get two top quality CD32 games for \$69.95. Good value!

I won't bore you with the predictable scenario descriptions. On this kind of game they're all the same, and you can read it on the back of the pack for yourself. You know the stuff - alien war, only you can save the galaxy, etc. It all adds up to one thing really - shoot the crap out of anything that moves!

Both *Overkill* and *Lunar-C* are true load'n'play, totally mindless, veg-out style shoot-'em-ups. The gameplay instructions for *Overkill* take all of four paragraphs and you don't need them any-

way. Just put on the CD, press the reset button and enjoy the AGA graphics.

Overkill is yet another *Defender* clone. *Defender* appeared in the game arcades ten years ago - it was the first game to use a horizontally scrolling playfield. You piloted a wedge-shaped spaceship along the surface of a planet, picking up pods to save them from attack waves of alien invaders. It was very fast, and my first efforts were measured more in seconds than minutes.

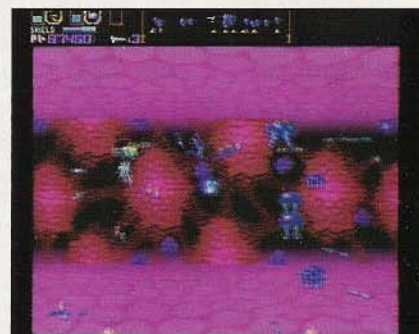
Overkill follows the *Defender* gameplay pattern, with a few variations. You pilot the same wedge-shaped spaceship but the background and aliens are different. I seem to remember *Defender* having only a black sky in the background. *Overkill* has 3D scenery stretching into the background with a sky of various hues. Instead of picking up trundling pods you rescue a whole troop of little men who parachute down to the planet from the mother spaceship.

Their job is to blow up the "Trilithium crystals" lying on the surface of the planet before the aliens get to them and use the energy to mutate into even more

Ratings:

Graphics:	80
Sound:	80
Instructions:	60
Playability:	90
Addictiveness:	95

Distributed by Hotpoint Software
(02) 428 7791. RRP \$69.95.



dangerous squiddies! Every time your troops blow up a crystal you must re-equip them with explosives. Troopers who want more bombs jump up as you approach, screaming "Down here, get me!" - or something like that, in their amusing squeaky little digitised voices.

Sound easy? Well it would be except for the fact that while you're trying to keep track of all these funny little men the alien squiddy-diddlies are trying their best to monster you. You must dodge them and the plasma balls they shoot and try to grab the icons they drop. This takes a bit of concentration and your first attempts will end with a lot of exploding spaceships! It doesn't take long to get the hang of it. You get five ships and a shield to start with - extra ships and shields are awarded every 25,000 points.

When you've cleared all the aliens from the first planet you go to the screen with a solar system map. You choose the next available planet and work your way into the Alien fortress planet in the inner-most orbit. Each level is basically the same with different backgrounds. In the end you will be confronted with the huge enemy fortress.

What more can I say? *Overkill* has fast, top quality graphics; it's good value; and it's sure to provide you with many hours of addictive gameplay.



CD32 Entertainment

By now, everyone has heard of the new Amiga CD32 games console. It's a great machine! If you're planning to buy one, or if you have any queries, drop us a line at the address below. This brand spanking new column is fully devoted to having fun with your CD32, together with information on all the latest hardware and software releases.

By Laetone Gravolin

Future games

At the moment, new A-grade CD32 games are still under production in leading software houses. There's been a rush of re-releases of popular old titles like *Sleepwalker*, *Zool* and *SimCity* - some greatly enhanced, some pretty much identical to the original Amiga versions. Here's a list of new titles you can expect early this year: *Akira*, *Alfred Chicken*, *Amiga CD Football*, *B17 Flying Fortress*, *Body Blows*, *Biosphere*, *Chaos Engine*, *F1 Grand Prix*, *Lotus Turbo Trilogy*, *Mortal Kombat*.

Most of these titles are distributed



Zool

through Hot Point Software. You can contact them on (02) 428 7791.

That just scrapes the surface of what the year has to offer. Unfortunately at the moment there are not many educational titles being released - I'm sure they'll arrive eventually.

MS-Dos CDs on CD32?

While on the subject of games, the CD32 can run some MS-Dos CDs! The CD has to be multi format though - ask your local computer store to give you a demonstration to find out if the program works or not. Surprisingly, the title doesn't usually say that it is multi format. For example, the MS-Dos CD-ROM version of *Guy Spy* works perfectly on the CD32 - great stuff.

MPEG video module

Sometimes playing games just is not enough. You need to rest your poor tired fingers from twitching on the control

pad so you can sit back and relax. The little magic box that will let you watch CD movies is available for the CD32 now. Price is around \$400. The movies will soon follow - these will be old and new releases creating much better sound quality than a VHS movie. Picture quality may be slightly inferior, but still very watchable.

The MPEG (Motion Picture Expertise Group) module will be able to play all of the CD movies via the new CD standard. The good news is, all the major CD drive companies are now supporting the standard, which is called "MPEG 1".

Should you consider a CD32?

Want the latest in Amiga technology? Play games all the time for pure non stop entertainment? Then the CD32 is a great move. On the other hand if you're thinking of turning it into a whole computer system, forget it! Commodore are working on a CD drive for the A1200 which will be able to handle all CD32 programs. However, Commodore claim that there might not be one available for the A4000 - not for a while anyway.

Network card coming soon

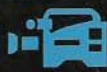
There's a nifty network card coming out for the CD32 soon - it allows flexible networking from one computer to another. This will be terrific, as you'll be able to access your CD32 from other Amigas on the system. For more information phone Computer Affair on (02) 417 5155.

Next month ...

Well, that's all folks. Next month I'll have loads of information and advice on new products coming out for the CD32. There will be also be a review on the MPEG module and a quick look at some of the technical side of the CD32, and a full listing of games that are available for the CD32. If you have any questions or problems, or if you want any information concerning the CD32, write to the CD32 Column, c/o Laetone Gravolin 271 River St Maclean, NSW 2463.

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